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Bulletin of the
WESTERN ARTS ASSOCIATION

Annual Report 1920

Proceedings of the Meeting held in
Detroit, Michigan,
May 4-7, 1920

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L. R. ABBOTT, Secretary and Treasurer,
234 Division Avenue, N.,
Grand Rapids, Mich.

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Twenty-sixth Annual Meeting of the *Western Arts Association*

OFFICERS AND STANDING COMMITTEES 1919-1920

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Supervisor of Household Arts,
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ing
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Chicago, Illinois
ERNST F. DETTERER
Chicago, Illinois

WESTERN ARTS ASSOCIATION

TWENTY-SIXTH ANNUAL MEETING

PROGRAM

TUESDAY, MAY 4th, 8:00 P. M.

GENERAL SESSION

Large Banquet Room, Hotel Statler

Music

Addresses of Welcome—

Frank Cody, Superintendent of Schools, Detroit

John S. Hall, President of the Board of Education, Detroit

C. H. Campbell, President of the Board of Commerce, Detroit

Ralph Booth, President Arts Commission, of Detroit

Address by the President—

Harry E. Wood, Director of Manual Training, Indianapolis, Ind.

Address—"Training the Consumer"

Rossiter Howard, Director Minneapolis Institute of Arts

WEDNESDAY, MAY 5th, 9 A. M.

AT ROUND TABLE

Society of Arts and Crafts, 25 Watson St., (Near Woodward,

Eight Minutes from Hotel Statler)

**Chairman—Ruth Raymond, Assistant Professor of Art Education,
University of Minnesota**

**TOPIC—A UNIFIED CONSTRUCTIVE POLICY FOR ART EDUCATION
IN THIS PRESENT CRISIS**

Subject—"The Idealism of Adolescence"

Lillian Cushman Brown, University of Chicago

Subject—"Design and Industrial Education"

Gertrude L. Carey, Supervisor Drawing and Industrial Art, Duluth
Public Schools

WEDNESDAY, MAY 5th, 11 A. M.

GENERAL SESSION

Ball Room, Hotel Statler

Music

Business Session—(Preliminary)

Address—"Color Knowledge a Universal Necessity"

Hugo B. Froehlich, Director of School of Art, Newark, N. J.

Address—"Art an Undeveloped National Resource"

**Arthur F. Payne, Department of Trade and Industrial Education,
University of Minnesota**

WEDNESDAY, MAY 5th, 2 P. M.

HOUSEHOLD ART ROUND TABLE

Detroit Institute of Arts

**Chairman—Harriet M. Parkes, Assistant Director of Manual Training
and Industrial Education, Grand Rapids, Mich.**

Subject—"The Community Kitchen"

Mrs. Nellie F. Kingsley, Evanston, Illinois

Subject—"The Art Element in Sewing Courses"

Hugo B. Froehlich

Subject—"Buying and Selling Apparel; a Broad Field for Women"

C. G. Sheffield, with J. L. Hudson Co., Detroit

**Subject—"Basic Principles Underlying Courses of Study in Home
Economics"**

Stuart A. Courtis, Director of Educational Research, Detroit

Subject—"Testing Results in Home Economics"

**Paul C. Packer, Assistant Superintendent, Board of Education,
Detroit**

Wednesday, May 5th, 2:30 P. M.

PRINTING ROUND TABLE

Henry II Parlor, Hotel Statler

**Chairman—Katherine M. Stilwell, Department of Printing, School of
Education, University of Chicago**

Subject—"Printing Teachers' Association"

**Laura E. Holmes, President of Printing Teachers' Association,
Chicago**

Subject—"Rare Books"

Ernest F. Detterer, Chicago Normal School

Subject—"Typographical Layouts—"

(a) "Their Construction and Value"

**Charles Neville Walker, Department of Printing, Cass Tech-
nical High School, Detroit**

(b) "Art Teachers Construction"

**Ruth Raymond, Department of Art Education, University of
Minnesota**

Discussion

WEDNESDAY, MAY 5th, 6:30 P. M.

ANNUAL DINNER, BALL ROOM, HOTEL STATLER

Toast Mistress—Amelia M. Goldsworthy, Art Director State Normal School, Kalamazoo, Michigan

THURSDAY, MAY 6th, 9:30 A. M.

GENERAL SESSION

Ball Room, Hotel Statler

Music

Address—"Advertising and Selling Our Goods"

C. Valentine Kirby, Director of Art, Pittsburg Public Schools

Address—"Industry and the Creative in Education"

Lillian Cushman Brown

Address—"Balance in Composition"

Rossiter Howard, Director Minneapolis Institute of Arts

THURSDAY, MAY 6th, 2 P. M.

MANUAL TRAINING ROUND TABLE

Detroit Institute of Arts

Chairman—R. A. Kissack, Director of Manual Arts, St. Louis, Mo.

Subject—"The Use of Jigs in the Manual Training Shop"

Harold Gossett, School No. 8, Indianapolis, Ind.

Subject—"Color and Design as Applied to Manual Training Problems"

Hugo Froelich, Fawcett School of Industrial Design, Newark, N. J.

Subject—"Manual Training in the Cosmopolitan High School"

Matt J. Scherer, Cleveland High School, St. Louis, Mo.

Subject—"Industrial Design"

H. M. Kurtzworth, Director of the Grand Rapids School of Art and Industry

THURSDAY, MAY 6th, 3:30 P. M.

VOCATIONAL ROUND TABLE

Henry II Parlor, Hotel Statler

Chairman—James McKinney, Assistant Professor of Industrial Education, University of Illinois

Subject—"How Industry is Meeting the Problem of Industrial Education"

Professor George E. Myers, University of Michigan

Subject—"What the Public Schools can Offer in a Practical Course in Home Making"

Helen Livingstone, Cass Technical High, Detroit

Subject—"Problems of the Part-Time School"

Professor Arthur Payne, University of Minnesota

Discussion

THURSDAY, MAY 6th, 8 P. M.

GENERAL SESSION

Detroit Institute of Arts

Music

Address—"Art and Labor"

**Gerrit A. Beneker, Artist, Hydraulic Pressed Steel Co., Cleveland,
Ohio**

THURSDAY, MAY 6th, 9:30 P. M.

RECEPTION

Detroit Institute of Arts

FRIDAY, MAY 7th, 9:30 A. M.

GENERAL SESSION

Ball Room, Hotel Statler

Music

Address—"Environment in Design," A message from Oregon

Esther W. Wuest, Director of Art, Portland, Oregon

Address—"The School's Responsibility to the Public Regarding Art"

Bonnie E. Snow

Address—"Taste in Design"

**Professor Grace A. Cornell, Teachers College, Columbia University,
New York, N. Y.**

Annual Business Meeting

Adjournment

ADDRESSES OF WELCOME

MR. FRANK CODY
SUPERINTENDENT OF SCHOOLS,
DETROIT

Members of the Western Arts Association: It is a pleasure, I assure you, as Superintendent of Schools, to welcome you to this, the first city of the commonwealth, and the fourth city of the United States. I welcome you in behalf of the four thousand teachers of the City of Detroit, a city of which we are proud, a city which manufactures more Ford cars than any other city in the United States, but we are particularly proud of this Association and the work which you represent.

In Detroit, we feel that we are doing a work in your line that is at least worthy of special mention not only in the school work but also are receiving their support at times when we need larger appropriations to carry on this important branch of school work.

So it is a pleasure to welcome you, and I know in Detroit, you will have a good time and appreciate the city the same as we do who live in it day after day. There are many other stars to twinkle in this little firmament, so I will be brief. I again welcome you and hope you will all enjoy your stay in Detroit.

JOHN S. HALL,
PRESIDENT OF THE BOARD OF EDUCATION, DETROIT

Members of the Western Arts Association: It is with very great pleasure indeed that I welcome you on behalf of the Board of Education. As a rule, in the City of Detroit, when we welcome delegates from outside of the city, we only have one welcome, but viewing you, and knowing the importance of the educators, we have a series of welcoming speeches. The welcome of the schools has been presented to you by our charming Superintendent. The Board of Education is now being humbly represented by myself. You will have given you another welcoming speech on the part of the Board of Commerce, one of the greatest organizations of the country, the President of which will do it possibly from the commercial side. Then you will have the artistic welcome of Mr. Booth. I can assure you that it is with the greatest pleasure that we welcome the educators.

The last year or so has intensified and brought to the front the importance of the teachers and educators of the country. The welfare of the country, and its prosperity, and its future excellence will depend largely upon educators. The people are beginning to realize that more than ever, and in this City of Detroit, we have been having what might be called an educational propaganda, the same as has been going through the country, and it is bringing great results. It is my great pleasure, as President of the Board, this evening to announce that this

being the 4th day of May, we have just completed by the legislative action of our council our educational budget for this year, and it amounts to Thirty-one Million Dollars, the largest budget for educational purpose that has ever been passed in this city. We expect, by the spending of this money to keep Detroit upon the map educationally, and we hope in some way to be a stimulus to those less fortunate places where there seems to be a lack of funds. De troit is a rich city, but it would have been a difficult matter for us to secure this money for educational purposes previous to this year. *Up to this year, they have always taken special attention to have the tax roll just a little bit less, but this year they are beginning to see that if the future citizen of Detroit is to be worthy of the great City of Detroit, we must not curb the amount of taxes that have to be paid for schools.* If it requires Thirty-one Millions of Dollars to run the school system of the City of Detroit for one year, then the people of Detroit this year have come forward and said, "We are willing to give it."

Again on behalf of the Board of Education, I welcome you and extend to you the cordial greetings of the Superintendent, his assistants, and the four thousand teachers and the School Board.

C. H. CAMPBELL,
PRESIDENT OF THE BOARD OF COMMERCE, DETROIT

Ladies and gentlemen of the Western Arts Association: When Miss Guysi first asked me to speak a few words of welcome, it seemed to me perhaps not entirely appropriate that an educational body such as you are should be addressed by the head of an organization which is primarily commercial. On second thought, however, I realized that after all, the connection between commerce and art was very close indeed. In fact, from the beginning of civilization, commerce and commercial success, and wealth have paved the way and laid the foundations and furnished much of the material for the upbuildings of all the structures of art. How could the great works of Egypt have come into existence had it not been for the successful development of commerce and the ensuing wealth by the Egyptians? How could the glories of the Acropolis ever have come into being but for the commercial success of Athens? Also the works of art in Rome, and following that in the Middle Ages, and following them, all the glories of Italy? Then in the old times the wealth of art that has been accumulated in England, became possible through its immense commercial wealth. Look at this country, becoming heirs as we are to the wealth of the old world, and it is the commercial success of this country that is making that inheritance possible. Here we have just begun—one may say just begun,—and it is commerce that has led the way to such beginnings as we have, and to what I believe is a very great future. So I say I believe it is quite appropriate that I should in the name of the commercial organization of which I am at present the head, and which among its six

thousand members includes not merely the business man properly speaking but the educators, the professional men, the artists, the leaders of religion,—in fact, we consider that we are a microcosm of the entire community,—I think I may then properly and I do most heartily welcome you to the city in the name of the Board of Commerce and I want to express to you the pleasure it has given us to place the entire resources of our organization and our building at your disposal.

RALPH BOOTH,

PRESIDENT OF ARTS COMMISSION OF DETROIT

Members of the Western Arts Association: I understand that this is an association of art educators and teachers of art. You know when we are sure we don't know and are willing to say so, we are on the road to knowledge and so I came tonight expecting to learn something from you and the first thing I have learned is you yourselves who compose the Western Arts Association.

I have the privilege of welcoming you to the City of Detroit, representing the Arts Commission of our city, and the Detroit Institute of Arts. I think perhaps you would like to know something about the Detroit Institute of Arts because it is a new thing. It is in a measure, I think, significant. This is not the first city to have a municipal art institute, but perhaps there is something more significant in that fact nevertheless, because I think that it represents a change in things artistic, and it also represents a tendency of the times.

The City of Detroit, of course, representing the citizens and an expression of their feelings in the matter, has taken up the cause of Art as a municipal affair, and because of the enthusiasm and interest expressed by the city and its people in passing a charter providing for it, the old Association of Art, called the Detroit Museum of Art, conveyed to the City of Detroit the splendid collections of works of art that had been accumulated during a period of thirty or forty years, and the beautiful site for a museum. The City has amply provided for the maintenance of that institution, and is already expressing its ambitions, almost I might say, for the realization of their charter purposes by giving an ample appropriation for the beginning of the erection of a splendid museum building.

I think, if I have a word perhaps in the light of a message to say to you tonight, it is because I feel very deeply that there is a greater concern, or there should be, on the part of all of us over conditions as they now exist in comparison with previous years.

The fear that I felt about Art in its relation to society today, as in many other things, is a tendency to mediocrity. I miss the high lights of genius that past ages have known, in these things, and I see a tendency toward the rise of the middle element at is were, the middle element in the production, or the greater production of things artistic as in commercial lines.

I am afraid of losing that fine gilt edge that should find expression and has in past ages found expression as the high lights of production.

So this tendency toward mediocrity—I must call it that, it is that medium grade—puts the matter up to you and puts it up to me and those of us who are striving to do better things but particularly you who are teachers or educators, who devote your whole time to that most interesting and most important matter, because if we are going to have this medium level of things, let us make it as high as we can. That is the important thing. It seems to me that it is only too easy that things shall sink to a lower level. I know I have your interest when I say that because that is the fear I find expressed on every hand. If we can raise that level to a high level, then it will be a marvelous accomplishment, that the whole people shall come up to a high level of expression.

The commercial phase, as represented by Mr. Campbell, is really in Detroit the all-important element. We want to bring to Mr. Campbell and his friends, and those interests that he so largely represents, the things that you represent, because in this new life we are entering, where we are raising the level of mankind, we must give expression through the important things of life. We must give it our influence, to all those things which are manufactured—I like that word "manufactured"—those things that are too often spoken of as "quantity production." We must instill into the proprietors of those institutions that finer sense of a belief in better things, so that they will give an expression ever in his quantity production of the fine quality, which after all is the fine sentiment within us and a response in our own spiritual being. Don't let us minimize the importance of this element, because it is the thing that within each one of us is striving for expression, the seeking for something to which we can give response.

After all, the thing that we are striving for is something spiritual. It is the spiritual side of life that we are trying to raise up, and there is so much encouragement after all, that we should be buoyed up that we can press forward to greater accomplishment.

I hope that while you are here you will have an opportunity to spend sufficient time at the Detroit Museum of the Institute of Arts. We have there an accumulation of years, some things of very great importance.

I ask you and invite you and welcome you to come to our museum and see what we are doing, and see the works of art that hang upon our walls and are exhibited in the cases in the museum.

I want you to feel at home here, and our Director of the Museum, Mr. Burroughs, will extend an equally cordial welcome to you should I not happen to be there. I trust that this meeting will be very profitable, and you will see many things here that will commend themselves so that you can take a message home.

THE PRESIDENT'S ADDRESS

HARRY E. WOOD

DIRECTOR OF MANUAL ARTS,

INDIANAPOLIS, IND.

We have looked forward with anticipation to coming to your city for our meeting, and now that we are here, after these warm words of welcome, we are doubly glad. We know that Detroit is a big place. We know that you are a large city industrially and now since the census reports are out, we find that you have advanced in population.

There are many of our members, who have never been to Detroit, but we all know of Detroit. It is a pleasure to meet here because we know you are doing a lot of things. However, when we left home, many of us felt as though we were doing some wonderful things educationally along the lines represented by this body, but when we came to Detroit, perhaps wanting to think about our work a little more, and now after we are here and we have seen Detroit and we have heard the addresses of welcome this evening and learned of the wonderful things you are doing in Detroit, I am sure we feel ourselves down low instead of up high.

We are glad that we could come to Detroit, and in behalf of the members of our Association, we wish to thank those representing these four departments from Detroit for their words of welcome.

I desire to correct one thing which perhaps is a little misleading, and that is that we do not alone represent the art interests. That word "Arts" in our title is a little misleading. We are a body of teachers, supervisors, directors, and perhaps superintendents, representing not alone the department of Art, but the departments of Manual Training, Domestic Science, Domestic Art and other allied subjects. So we are a little broader in our scope than the average conception of the word "Arts" would indicate.

I presume that you, who are members of the association, are surprised to have me introduced to you as its president. Your chairman would have spoken more correctly had she given me the title of "accidental president," for that is really what I am. Those of you who attended the business meeting last year, will recall having elected me as vice-president. Your committee on nominations came to me prior to that business meeting and told me they were going to present my name to the association for vice-president. To my protests they replied that it was the one office in our organization which did not require a lot of hard work, so I gave consent to their proposal, expecting to take it easy and have besides the honor of being vice-president. But the unexpected happened, as it often does, and on the fifth day of February, I received word from the secretary that the president had resigned and that the responsibility for this meeting had fallen upon my shoulders. So instead of resting at the oars, I have had to paddle hard.

I wish to take this opportunity of expressing my appreciation of the way in which the chairmen of the various committees, some of whom were appointed prior to my accession to the chair, have taken hold of their work, and I am sure that as our program progresses, you will reap the benefits of their labor.

We are meeting this year for the first time under our new name. It seems strange to call ourselves, "The Western Arts Association" instead of "The Western Drawing and Manual Training Association," but it is just an added confirmation of the fact that the times are changing and since that is true, we must keep pace, and I, for one, am glad to have our association known by this broader name. I feel proud that I am to have the privilege of being the first president of the rechristened body, even if I am here by accident.

"Western Arts Association." What is it going to stand for? What does it mean? As the "Western Drawing and Manual Training Association," it has threshed out many weighty problems. I like to think back over the years of my connection with it, and the general themes we have discussed. Some of those things which we took up in the earlier days, have been settled and disposed of, but we will also find that some of the subjects are just as much alive today as they were then. There was the meeting when we talked so much about "Correlation." More recently we considered "Casting of Accounts Educationally of the Fine and Industrial Arts," and still more recently our subject was "New Ideals and Reconstruction in Education." We are still hearing much about reconstruction in education, and it will be hard for us to refrain from talking about it now, for if we are to continue to be a growing nation educationally, we will be reconstructing all the time.

But at this meeting I wish we might focus our effort on ways and means of making a more "Artistic America" especially in the common things. We have our wonderful monuments, our beautiful parks and boulevard systems, our magnificent buildings, our splendid art museums, our priceless paintings, but what we need is art in the common things, those things made of wood, clay, metal, concrete, paper, glass, and various other materials—the things with which we live every day. We have made wonderful strides in this direction in the last few years and I look for the time to come e'er long when we can look about us at the common things and not be ashamed to see them stamped "Made in U. S. A."

Recently I was told by one who stands high in educational circles, that artistically we, in our schools, are slipping backward; that all these permadella beads and all this cut paper stuff, with gaudy colors and awkward shapes, are ruining our sense of art. These things may seem crude to some of us, for we are not all alike in our appreciation, and as a product they do not have the finish or even the artistic touch that we should like, but should we consider so much the product?

Should we not see through these products the development of the boys and girls whose minds and fingers created them? It seems to be a constantly recurring error in our educational work to stress too greatly the project, and fail to recognize the fact that we cannot expect from boys and girls results commensurate with those of master workmen. We are in danger sometimes of looking at the unusual things and ignoring the common things. Nevertheless, if we are to have more art in the common things in America, the burden falls first upon the schools. We have the problem well under way and have had for a long time and we can see evidences around us everywhere of our work in the schools.

It is pleasing to look about and then contrast what we had a few years ago with what we see now. For example, contrast some of the wonderful color pages in our magazines today with the lithographs of a few years ago. Did you ever possess a yard of pansies or a picture of a beautiful vase filled with red, yellow, blue, pink and orange flowers? It sometimes took as many as seventy-five wrappers from a certain kind of soap to make you the owner of one of these wonderful pictures, unless by chance you had special talent. You could then borrow one and copy it in oils and stand some show of winning a prize on it at the state or county fair.

Nowadays a charming color print by Jessie Wilcox Smith helps to sell soap. A glowing sunset and a sparkling lake, surrounded by castles, from the brush of Maxfield Parrish, sells auto tires, and a pen painting of the out of doors by Franklin Booth advertises railroads. But it is not only the artist of the pen, pencil and brush, who is raising the standards of art in our country. Consider, for instance, the present window displays of some of our best department stores. We thought cut glass too was wonderful in those old days—the more cuts the better—and the more disturbing lines of the cuts, the more satisfactory they were considered. Compare that pineapple or sunburst pattern with one of the dignified glass shapes of today, in which plain glass predominates and the cutting is limited to small, well designed units, effectively placed. Notice some of the furniture of today—chairs good to look at and restful to sit in, every line emphasizing ease and comfort; no turned spindles stuck in just any place as glowing examples of someone's mastery of the art of wood turning; no clumsy legged tables with their assurances of sound construction made objectionable prominent by visible mortise and tenon joints. Look at the wonderful color and texture of the brick in some of our buildings of today, as compared to the smooth, red brick, the only one known a few years ago. Imagine that first auto, with its dash board, and carriage-like appearance, beside one of our modern cars, designed and built to emphasize speed and comfort. How about that set of dishes from which you ate as a boy or girl, where you sipped pour tea or ate your pork chop out of the heart of a rose? Have you thought of the difference

in the hardware in the modern house of today—or of the panelling in the doors or the plumbing in the kitchen and bath?

Many a community has taken up the fight against bill boards. We all agree (except the man who uses the bill boards to promote his sales) that they were ugly things and most of them still are, but they are here to stay and instead of being able to do away with them, we must direct our efforts to keeping them in dignified proportions and refined in color and design.

We could go on and on indefinitely, citing the wonderful changes which have already taken place, but there are numbers of things sorely in need of the change which unfortunately cannot yet be included in our citation. Do you suppose the time will ever come when the labels on our canned goods will speak of art? Makers of toilet water and soaps have begun to comprehend the advantage of art in advertising, but the canner somehow feels that the chromo of a girl on the label is the only sure way to sell a can of corn, even though that particular kind of corn may be known as "Country Gentleman." Of course, canned tomatoes would not sell unless the familiar, big, red, ripe tomato appeared on the label. The designer is not so much to blame for this state of affairs, for he, as a rule, only reflects the orders of "the firm" behind which is the sentiment of the public. The fault lies with the consumer. Until he is educated to demand beauty in the common things, ugly things will be produced and thrust upon him. Few of us are designers and therefore cannot change the kind of designs produced, but we are all consumers and as such we have a responsibility.

I believe the public schools have had and will have more to do with raising the standards of art in common things than any other force, because, through our art and drawing courses, we are training the few designers of tomorrow and we are opening the eyes of tomorrow's consumers to the excellence it is possible to attain. They will demand and the designers will therefore produce things of beauty for common use. Why shouldn't the common things be beautiful?

The time was when we did not have art in the public schools. We had drawing. Well do I remember the "artless" drawing books we used. I will never forget those pages on which the shape of one-half of a vase was given and we were expected to draw the other side exactly like it. It is true that they were drawings of vases but we never heard the name Rockwood, Teco or Van Briggles. As for learning anything about how vases were made, or of what they were made, the color, the glaze, and where the best examples were produced—no one ever dreamed of that! But we have outgrown that stage. Our drawing books are full of accurate reproductions of beautiful things; they contain many examples of art in industry.

We tried to draw pictures of chairs and furniture, but they had no relation to interior decoration. That was before the day of manual training in the schools and no one would have dared to suggest the

construction of such things in the school room. Finally, however, the wood working shop became an established and accepted fact and today manual training is not confined to the woodworking shop only. There is mechanical drawing, printing, sheet metal work, concrete work, electric wiring and construction, shoe repairing, etc., each developing practical things.

In stead of just drawing for the girls, they spend a share of their art time in designing costumes, having pleasing color harmony and a style appropriate to the dictates of fickle fashion, yet particularly adapted to the figure with which Fate has adorned or afflicted each one. How many girls have come to their teens actually handicapped by ill fitting, poorly constructed clothing, just because their mothers had neither knowledge, ability nor taste, and the girls themselves knew no better! How many girls have gone out to make homes for themselves without even a beginning acquaintance with the most elementary kinds of sewing—the kinds without which it is almost impossible to keep a home in running order!

Art becomes apparent also in the study of cooking through instruction in the placing of the silver, dishes and napkins upon the table, in the garnishing of meats and vegetables, and arranging of dainty salads. To eat is almost the commonest thing we do. We all do it and that usually three times a day, and yet is it not pleasanter and more appetizing to sit before a neatly arranged, clean table, even though it may contain nothing but bread and jam, than to sit before a crowded, carelessly set table with soiled or stained linen, even though the food may be acceptable? And if the girls of today are given this artistic point of view, then the housewives of tomorrow are already partially prepared to fulfill their part in making artistic homes, for after all are they not the very same girls? We can no longer say “sewing classes” and “cooking classes,” for we have grown beyond the mechanics of these subjects and study them from the viewpoint of a homemaker.

A few years ago we were startled by the sudden appearance of a new actor in the center front of the educational stage. We called him “Vocational Education.” We immediately became so interested in this new star that we almost forgot that only a decade or so ago we were in the same way listening with wonder to the prophecies of what “Manual Training” in the school was going to do for the boys and girls. Many of the prophecies have come true and the foundations of manual training are laid deep and the structure is strongly built, and even though some of its former patrons have deserted it to follow this newer star, manual training is here to stay. It is perfectly natural that vocational education should so quickly take the country by storm, backed by government funds, as it is; and with industry calling so loudly for trained workers, it is also perfectly natural for us to try to round up those who are lacking in certain

manifestations, and fit them for profitable employment, but, interested as we are in vocational education, we must not fail to remember the vital importance of the field of manual training. We are training our boys in the wood working shop, the sheet metal shop, the print shop, the foundry and the forge, to see in material things, to comprehend structure. We are training our girls in our sewing rooms and kitchens, in the proper mode of dress, the preparation of well-balanced meals, in methods of buying, the value of a budget in the home, and many other practical applications of the fundamentals of education for both domestic and business life. We are planting the seeds of industrial work and the vocational gardeners are transplanting some of our products and developing them much farther than we can hope to do, and with public sentiment aroused to the need of training the citizens of tomorrow for profitable employment and for home making, and organization such as ours can do a wonderful work, combining as it does these interests in art, manual training, household arts, vocational education and printing.

Then let us return to my unanswered questions for what does our association stand?—what does its new name mean? Our association must stand for what is right, practical, useful, elevating, advanced, artistic, and of highest educational value in each and every line with which it deals. And may we hope that its name will mean to our whole country the dawn of a new day, the day of Artistic America! May we receive such inspiration from the addresses given at this convention and from our personal exchange of ideas, that we shall return to our homes and to our work, determined to help our nation deserve that title.

You see I have hinted that it is not those of you who are here who are going to revolutionize things by your own work, for you are not designers. You are not designers with pencil and with brush. I will say the designers of character in children. But that I am sure will be a larger field than that, and that is the consumer. I think we could have no better subject to start off our convention than that one thought, that after all it is not our own interests; it is the influence sent out from those we reach through the schools, those in the home, the consumer. It is therefore with great pleasure that I introduce to you the next speaker, Mr. Rossiter Howard, Educational Director of the Minneapolis Institute of Arts, who will speak on "Training the Consumer."

TRAINING THE CONSUMER

ROSSITER HOWARD,

DIRECTOR MINNEAPOLIS INSTITUTE OF ARTS

Members of the Western Arts Association: Your president makes me feel if Mr. Booth has lived safely through the last 20 years of the 19th century, that we are not in so very great danger today. I do

remember very well those things that Mr. Wood spoke of, and remembering them, I do not feel as badly as Mr. Booth about the mediocrity. The importance of the mediocre is to my mind that it is so much better than the bad and so much more obvious. A few years ago we were in trouble with mediocrity. Everything was so bad that the only way we got along with it was by being so used to it that we did not see it. Now, it is raised to the point of being merely mediocre, and that is a very considerable step. The standard, I think, reaches so many people that it never did before.

The reason that the Grand Rapids people have cut down the number of their patterns from three hundred and fifty to hundred and forty is that it needs to put out three or four times as much furniture, because there are three or four times as many people, who want good furniture and are willing to pay for it, and for my part, I would rather have three thousand people have a mediocre thing than two thousand nine hundred and ninety have bad things, and the last ten have good ones. Now, that is very largely the condition. I am not trying to have any argument with Mr. Booth. I think we will agree perfectly on it, but I think that is significant. The purchasing power of our public today is so much wider as well as so much more intense, so many more people can buy more things, and so many more people want good things, and I only regret that there are not more of them to go around.

Still, we do have lamps—here in Detroit. I saw them advertised in the car today—that would play tunes to you. I haven't seen anything like that in Minneapolis. We will have them out there after a while, but I think it might be particularly due to the fact that we do not have so many Swedes and Norwegians, who are not so tickled with the musical lamps as perhaps the Italians and the lighter-spirited folk of Detroit.

In any case, your president is right about the importance of the great number of purchases. We want an Artistic America, and we are going to nibble at another mountain. I want to know what you have accomplished with the other you were working on before. You took a nibble at "co-ordination." I wonder if the mountain is down at this time. I tried to teach in a university for the last four years, or up until quite recently, and I was perfectly astonished to find in the university there was no co-ordination at all. Nobody seemed interested in theories; they were all interested in History, English, or Home Economics, or some other thing, but nobody seemed to be interested in the whole group and their work together. There was no co-ordination at all out there in the school, and I find it some in our schools. I talked to some of the grade teachers and supervisors, and it seems they do not have much chance to get together. If they could take less time teaching the children and more time teaching each other, we would get along faster.

We get the children up there in Minneapolis way back in the middle of the night. At half past eight it is dark up there in the winter, and they start out in the dark and get there to be taught by teachers, who do not know the grouping of things they are going to teach, because they are kept so busy teaching the children that they have not time to find out. That is in Minneapolis. So far as I know, it is every place I have been. Co-ordination has not been worked out entirely.

I go into the school room and I find the teacher does not know anything about music and she has to teach music, and she has to teach art and she doesn't know anything about art. She does know something about patriotism, but she will put up a picture of George Washington and of Wilson, and they have no relation to the decoration of the room. I don't see why you don't have something done about it. I go into a manual training place and I find them making abominable things, and I wish the art teachers and manual training teachers could get together more. Perhaps they could. I think you would get together closely enough and acquire enough about the things you make so that you would go home with a co-ordination which would work out a beautiful feeling for wood among the designers, so that when we go into a school room of designers, we shall not see mostly designs that are preparations for a fence or cheap plates, but something that feels the quality of wood, the quality of iron, the quality of clay. That is the contact that comes from a study of three dimensions of materials, and that comes from using them and criticizing them, and appreciating them. It is awful hard to get, and yet I think the reason is chiefly that teachers—as far as I know, all of us—are so much occupied with teaching their own subject that it is very hard to stop long enough to get a sense of what the child ought to get in other connections.

Now, I know it is so in our art school, not that our art school teachers fail hardly in the appreciation of beauty, in the appreciation of works that are far beyond the beauty that the children can make, or that the teachers can make, but they have not time to go out and get them. They haven't time for other subjects. They are so busy learning to draw that they haven't time to soak any. It is the same with History; it is the same with English, and the same with all the things.

It is my own fault, I suppose, as much as anybody else's.. but it would help at least if we could in this matter of training the consumer keep in view when we are making the children draw and trying to make them appreciate, keep in mind their own sensibilities at the beginning. We begin by spoiling them. And right here I want to quarrel with the president. We will quarrel all the way through, but I know we will come out the same place. He spoke about the red and blue and gaudy colored papers, and I have been thinking about them too.

I said to a little five-year-old girl I know, "What is the color of that sand down by the shore?" She said, "It is violet and it is rosy and

it is kind of yellowish-gray, and it is all colors." I said, "What is the color of the sky?" She said, "Well, that is very much like the sand, but it is not so yellowish; it is rosy and violetish, and it is all gray, but it is different kinds of gray." She had that sensibility about color relationships. She was not precocious. 'It is the natural child feeling.

I saw another child in a class where instead of being given colored papers, they let the child take what he or she wants, which was sometimes one and sometimes another. I noticed that this child always put the crayons in the box in the same order. It went—see if you can see why—red, naturally, orange, yellow, green, blue, black, violet and brown. I asked her why she did it. She said, "Red married orange, and yellow married green, and blue married black, and violet had to marry brown, because there wasn't anybody left." Now, there were in the feeling of that child two series that were started by that; one series, the highest according to the spectrum, and when she went from the green to the blue, she was going down in the values, and black would naturally follow, and violet had to go along with brown. Brown had no place in the box anyhow. The child had the natural feeling of the spectrum relationships, and she goes to school and is given red, yellow and blue, the three colors that have the least relationship it is possible to find. These she is told are primary. From what viewpoint? Primary from the point of view of putting together, not primary from the viewpoint of appreciation, not primary from the effect upon the eye, I mean. Primary from the point of view of the designer, not from the point of view of the consumer, and the child began as a consumer. If you would give him the "Munsell" colors to play with, he would have that natural group. The fact is they have a spectrum relationship the child will feel, and they are not bothered by a brown that comes in and spoils it. Let the child do it if that is necessary.

I remember in this Montessori class—you may think I have been teaching Montessori class, but I have not—but Mrs. Howard was teaching a class in it out on the prairies of South Dakota, and I could see what the children were doing. I remember one youngster there working with crayons, but they were not Munsell but Crayola, which are about as hard. This child was not taught, but he played with crayons all the time. After he had been playing with those crayons for a while, I was working there trying to make several panels of some gray. I was getting out some forms for university students in color, and this youngster stood opposite and said, "That is a sliverish gray." The next one, he said, "That is a violetish gray." I said, "What shall I do to make it silverish?" He said, "Put some yellow with it and some white." Then another one, he said, "That is a red gray." "What shall I do to it to make it silver?" He said, "Well, put some blue and white and some yellow." And every time he told me what to put in there to make it right. He had got his colors, not by taking the three

crudest colors he could and trying to put them together, but by playing with them he got them inductively. We take the child and kill that color sensibility; the children have lost it; I have seen them lose it by giving them crude colors which have no relationship, because at first they are simple, and then progress from the simple to the binary and the tertiary, and go on following the mechanical process which is the process of the designer rather than the process of the consumer, that is, of the appreciator.

Following the psychological process of the one who looks and enjoys, it seems to me that it is very, very valuable to find what the sensibilities of the children are when they are little, and then develop those, instead of killing them and then trying to develop it again in the high school. We do it quite successfully, but then it is hard work, I think most of you know. I think it is unnecessarily hard work, unnecessarily because we have hurt things along there in the beginning. A child has a natural sense of order, if you get them before they go to school, and that order, by the way, is a geometric order. You will see a child putting his blocks away and he will take an eternal time to put the blocks away, to get the ones all the same length together, and the little ones together, and his mother will say, "Hurry up, get them away before supper," and he is taught to get them away in the order of time instead of geometry. Children lose their sense of order in the way they put their crayons away, and that goes all the way through, and we build up in their minds a compromise between one step and another that is unnecessary but awfully convenient for one, and then we try to get over it. Then when they come to be consumers and purchasers, we find very great difficulty.

If we could keep through the high school that same idea of the consumer, by bringing in the most beautiful in life they can see outside—we know you do that a great deal; we don't do it nearly enough, at least, in any place I have ever seen—would we sell the bad furniture we do if we had the contact with the beautiful, with the beautiful textures, and with the beautiful iron work? We have to develop those things in them through keeping the viewpoint of the one who eats the dinner rather than the viewpoint of the cook; although we have been trying to teach the people to be consumers, to be intelligent consumers, we have to teach them to be intelligent cooks, and that is a very, very different psychological process.

I know because I haven't any of the cook in me. I never did have. I know when I was a small boy, the one who lived next to me was a natural born cook, and I was a natural born eater of the dinner. We were both of us true. He always wanted to cook and I always wanted to enjoy the cooking, and the processes are entirely different, and one requires intelligence as much as the other. We went to work afterwards; he is now a painter in the town where we lived, but I was always more interested in what other people were doing and in com-

paring their work, and he was always more interested in doing the thing himself.

When you get up to the grown people and they get out of the high school, then comes the art school that trains principally to cook, that trains principally the designer, and we need those more highly trained than ever, but we need very few of them. By the way, I think that should be so obvious that there wouldn't be any argument at all, but I was talking the other day with the head of our own art school in Minneapolis. I wanted to organize there a class of industrial arts and bring together the manufacturers, the designers, and the schools, and the clubs, and museums, and work principally on the consumer, and she said, "Mr. Howard, you are beginning at the wrong end; you are beginning at the top; you ought to begin at the bottom. What is the use of trying to teach the consumers if you haven't the designers? I think we ought not to begin at the top?"

I said, "All right, you begin at the bottom and I will begin at the top, and if things hold, we will meet in the middle."

We need very few designers. I believe there are twelve designers that are doing all the work of the big firms in the United States, but we need those very highly developed, and those are for the art schools to develop, but the consumers and the salesmen and manufacturers, we have got to get those too, because if you don't get the manufacturer willing to buy the good design, what is the use of having a designer, and the manufacturer won't buy the design if he cannot get the distributors to distribute it.

I had an illustration of that the other day in a beautiful furniture factory. I came across a fine walnut table, Renaissance. I said, "Why did you put that finish on that table?" He said, "That is to go out to the department stores." I said, "What has that got to do with it?" He said, "They wouldn't know how to sell the tables I suggested in their store. The sales people don't appreciate it."

They need that instruction. They need to be taught the appreciation of those things, and if you can get hold of the sales people, you can accomplish a very great deal. It is hard to do. I have tried it in several places, and I had more failure than success, but I will keep on nibbling at the mountain. With the help of others, we may get somewhere.

Out in the little town on the prairies of Dakota we tried first with our art club there. By the way, you can get hold of your consumers by your art club. Get them to realize what things they are going to buy now. We tried to get the storekeepers there. We had a nice window dresser. There was a grocer there, who had a perfectly stunning window. I got him to read a paper, and he did too. I went out and worked by the day for weeks with the carpenter to get hold of him, and he wrote a paper for us. We got hold of the various store people, but mostly they were ashamed to come, but they would come

if they had a paper. You can get hold of them if you will have an exhibition of things from people's houses. Think of the beautiful old laces there are in the town, and then the modern reproduction of the laces which are also to be had in the stores. How that will please the storekeeper, and how it will please the people who had those laces. These works of art they didn't know were art! The same way with furniture.

I went into a little village in the northwestern corner of Iowa, and there staying in the house of a farmer, I asked the small boy if he was going to be a farmer when he grew up, and he said, no, he was not going to be a farmer; he was going to be a college professor and wear Sunday clothes every day. The first thing I saw in the hall was a beautiful 18th century table, and over it was an 18th century portrait beautiful done. In the living room, with the fire place in one end of it, was old New England furniture, all mahogany. That was not the only house. You will find them scattered all over Iowa, Dakota, Idaho, and all the way out to Washington. Those things compare with the things in your store.

That is the way I finally got hold of the store people in Minneapolis last year, by having an exhibition of antique furniture, and then going to the store and getting the modern ones and putting them side by side. Sometimes the modern ones would give the old ones a fairly good run. The labelling of them was a nice problem in diplomacy. It got the men interested and now they are glad to come in and do a great deal of work on the problem of the consumer and they want their sales people to get hold of it, too. One big department store is going to pay for a course.

We are getting out a little pamphlet on the History of the Home, an outline for women's clubs. We are getting out a group of these outlines on women's clubs study, one on the history of decoration, one on the history of furniture, one on the history of the home, one on the history of the book, and all of those things are paid for by the stores now, who are dealing in these things, or by the manufacturers. The decorator is going to pay for the one on decoration; the furniture manufacturer for the one on furniture; the bigger department store for the one on the home.

In other words, if you get these people bringing out their own things to show side by side with the ancient works or art that people are in the habit of taking their hats off to, they will realize they are working in a field which has the possibilities of great dignity, and they get a pride in it, and appreciate more the better things, and that is what you are attempting to do. It will give you a vast grasp if you can get hold of the stores and of the manufacturers through these exhibitions.

There seems to me then these three ways to get it: Begin with the children and keep with them the viewpoint of the appreciator while

they are working with their technique, and not go to the vocational use of the hands. I take it from what your president, Mr. Wood, said that he believes that the use of the manual training, that is, the hand work in the grades, is chiefly education, is largely a matter of motor training and appreciation, and the analysis of form and texture, and later on comes vocational training. If we could remember that in our art and keep thinking of it as motor training toward appreciation, it would help. It would keep the child so that we would not have to do over again what we destroyed when young.

Then get hold of your sales people, your great mass of distributors, and your much larger mass of consumers through exhibitions and through turning the clubs to the study of the things you care so much about. It will require organization. It will require perhaps not the creation of any new organization, but it will require getting into the life of the city in a way which most art teachers have been afraid to do usually, but I believe the more you get into it, the more you do of that larger co-ordinating work of the life of the city, the more you will find you are driving a wedge into that larger work which makes our country artistic.

COLOR KNOWLEDGE—A UNIVERSAL NECESSITY

HUGO B. FROELICH
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As children, we knew of the fact that certain color has a certain irritable effect upon a certain animal. In fact, that knowledge is so universal that it has become commonplace and we use it as a figure of speech, that the red rag will irritate the bull. We know that color has other effects, that it affects insects, and we know how the dignified turkey gobbler flew in a rage when his mistress appeared in a bright garb. We know how we are affected by various kinds of color; we know that color attracts or repels, that it enrages or calms, that it irritates or soothes, that it advances or retreats. We know that it has those effects on us, unconsciously perhaps, but they are those effects that we must feel when we see various arrangements of color. The interior decorator makes us of it. He camouflages almost a dark room, an impossible room, into a modern, sunlit appreciation, and in that way gives us a color charm that we are influenced by.

We live in a world of color and if we suddenly took color out of this world it would be a dismal place indeed. Just suppose all color gone. We ourselves would appear as with gray hair, gray faces, gray eyes, gray clothes; everything about us would be gray; we would go down the street and look in shop windows of gray silks, gray millinery, gray sunshades, gray sport suits, gray evening gowns. Just think of it! We would go out in the country among gray fields, gray trees, gray shrubbery. In fact, it would be a most dismal proposition. We

then are affected.

We do live in this world of color; it is one of the things we cannot escape, and if it is one of those necessities, those important propositions, we must deal with it somehow somewhere. Always we deal with arithmetic, with English, with geography in the schools. There is the place where the children are still susceptible to molding; there it is that we give them these subjects. If this color is such a universal proposition and we cannot escape it, there is the place then that color should find its beginning. The question then is, how shall we start this in the schools?

In this new age, we must have an understanding of it, a definite understanding. It is a commonplace that a patient convalesces more quickly in a sunlit room than in a north lighted room, not so much that the sun shines on the patient, as the effect of the sunlight in the room, the coloring, the brightening up of that room.

A London physician made some experiments during the war with shell-shock cases. He arranged a number of rooms, one in red, one in orange, one in yellow, one in blue, and one in violet, and he tried some of the shell-shock cases in these rooms. The red room was impossible. It would irritate the patient. He tried the violet room and that was depressing; it had a kind of overwhelming, saddening effect. He tried the blue room and that was chilly; he shuddered, as it were, with cold. He tried the orange room; that seemed to irritate somewhat. The last room was a primrose yellow room, and here the patient said, "This feels better," and sat down without an effort, showing that the color had quite an influence, not only on this patient, but on many other patients. That same experiment was tried over and over again.

If then we are all affected by color, if all people, those who are out on the streets, those who are in business, we here, if we all make choice, and we do whether we will or not, whether we have any attraction or not, we do make choice; if then it is such a universal thing, as I said a minute ago, it should begin in the schools. It should begin with a child and we should develop some color theory.

We get our sources of color, for instance, from the pigments. The manufacturers provide for us various pigments. The color theory of light is very different from that of the pigment theory. In light we can demonstrate very interesting propositions and some very truthful ones that are different from the pigment theory. Why is that? In pigments there are impurities. For instance, we get our pigments from the by-products of coal tar, from minerals, from earths, from vegetables, from chemistry, and that forms what I would call the coloring matter. It in turn may be mixed say, ground in oil, and it becomes oil paint, and it is used on the artist's palette, or by the house painter in the painting of buildings and barns. If it is ground and mixed, say, with chalk or kalsomine, it becomes the colored chalks and kalsomine paints. If it is mixed with a wax, it becomes the colored

crayons we have in our public schools. If it is mixed with glycerine and some binder, it becomes water colors. If it is mixed with chalk, it becomes a pastel. So that all coloring matter is pretty much the same and it depends upon the mixture whether it becomes oil color, water color, pastel, and so on. This admixture is a sort of impurity. It takes from the color its luster, its brilliancy. It is in its purest state in the dye form. Using colors in their dye form shows them in their greatest intensity and greatest brilliancy. This forms the source of color.

Now, as to the theory of color. Here again our theories vary. In the work that I am going to show you, the primary, or the theory known as the red, yellow and blue primaries, is the one used. It has been in use for years and years, from the time of Michael Angelo to the present time. It has worked. It is being used as extensively now as ever in spite of some of those who oppose that theory. It doesn't matter much what theory you are using, provided it functions, provided you get the message across. Providing you can teach the public a clear understanding knowledge, then I would say that the theory is something we can tie up to and actually teach.

In this theory, the yellow, red and blue, forming the primaries, are called so because by the admixture of these we can approach very nearly all color ranges. We know that certain colors, like Maryland green, cannot be made by mixing these colors, but green is made by the admixture of red, yellow and blue. The general scheme does hold that when you mix a yellow from the yellow family with a red of the red family that you will get an orange. It is true when you take one of the red family and mix it with a blue of the blue family you will get a violet. The work in the grades in the schools has been based on that, and every grade should have a definite step.

For instance, there should be a definite step in the first grade. True, these children are just from the kindergarten, and while no definite color observation is carried on with the children, they do learn those three colors. They take the red group and the children are asked to name the things they see that belong to the red family, and they will say, "Jeannette's hat ribbon is red," and, "There is a red sweater." "Here is a red waist." "Somebody else is wearing a red dress. There may be something in the room that is red; there may be a red vase; there may be a red flower, and in that way they notate and connect the things they are acquainted with with the things in the red family. The same thing is done with the yellow family, naming all the things they see and know, and so with the blue family. In that way, they get the idea of red, yellow and blue.

In order to make the work function and carry out a sequence, the color is restricted to, say, four lines of work. Every art teacher, as you know, has her course of study, and she has certain definite things that she teaches. Now, that is as it should be, and what she is teach-

ing may perhaps not agree what is going to be shown here in these charts, but that again doesn't matter so long as we succeed in getting art in each course that actually functions in life. I lay great stress on the idea that the things we teach in the schools should immediately work out in life when the pupil leaves the public school. That is demanded of arithmetic; it is demanded of geography; it is demanded of all the academic studies. Then why not of art? Why should art be fixed? Again, in arithmetic, we demand eighty per cent results. In fact, some studies demand ninety per cent in passing results. In the academic studies, they must pass ninety per cent; English, spelling, writing, geography, arithmetic, and the studies known as academic.

Again, why should Art be favored? Why shouldn't we be able to reach at least an eighty per cent mark? Why shouldn't the art and the art teaching be of such a nature that eighty per cent of the children will get it? We couldn't say we were going to make artists of all the children. We have given up that idea long ago; none of us believe that, of course, but we are making the great community of consumers. Out of this great group of consumers, there will be a few who will be producers. It is our mission to select those out of the talented ones and try to send them to the art schools and the higher institutes, to places like the Art Institute of Chicago. The Teachers Institute of Fine Arts, and those art schools where they can become specialized, and become the producers, and the great mass of children become the appreciative public.

In a scheme of that kind, then the work should be planned so that it is possible to teach this in the first, the second, the third grade, and so on, through all the grades. In the large cities, we do not have enough special art teachers to give personal instruction. It must come through grade meetings, teachers' meetings, and be taught by the grade teacher.

Again, the work must be of such a nature that it can reach the masses. It must be of such a nature that every one who is walking the streets now should know that art, should know what color is, what design is in clothes, what design is in materials. So that the work here has been divided into four groups. Color and design are in the first group. Costume design; we all wear clothes; we all should know something about color in garments. We all are affected by advertising. We all must live in homes and have to decide the color combinations of the walls, furniture, and that which makes a home. Those things are determined whether we know anything about it or not. Everyone does make a color choice. Everyone, if he or she lives in a home, does use her knowledge of composition or arrangement. Everyone does have some influence about the kind of advertisement.

So that in the first grade, we use only the primary colors, with the neutrals here, say, white, gray and black, leaning towards no color, therefore neutral. Being neutral, they will go with any color. They

really give a setting to the color, or dilute it, or help in the arrangement, and many of us do not quite appreciate how important the neutrals are in making a color scheme.

In the first years, while nothing is said about color, except the family groups, they do the things that any grade may do, the first grade, in which they use, say, the primary colors. That gives the knowledge of red, yellow and blue, together with the neutrals. In costuming, we have the same things. These little forms are cut and they are clothed with colored papers. At present those papers are manufactured. They are not expensive and they do not run into a very great cost as far as material is concerned. When we have a condition of this kind that we do not have a particular paper, the water colors, usually opaque colors, show card colors, can be used in making the tints or shades or tones that are necessary.

In this chart, we get the first steps in advertising, the cutting of a letter in connection with something—animal, still life. In the interior, we plan just the arrangement of the room. It is nothing more than the primary manual training, in folding and cutting and pasting. There is no drawing at all in this. In fact, it is a matter of arrangement. They know what a window is? Where are the curtains? What are they? What color are they? How are they arranged in your home? How many windows have you in the hall? And they learn the idea of window and window draping.

In the second year, we teach the mixing of yellow with blue, and we call those three colors orange, green and violet, the binary colors, by mixing the two colors. In the second year, the idea of orange, green and violet is being expressed, and it is carried through these four arrangements of which I spoke. In the color design, we have balls, panel shades, lanterns, fans, and caps, and various things that the children do know about, and it is all paper cutting. They cannot do drawing as well as this I have shown, but that is not the object here. You know how poorly they draw. All we are after is a cultural idea. They are to gain in appreciation, in selection, in arrangement. It is that that we are after, and not so much the creation or the artist's side of it. Here are definite color arrangements in some of the things that every child knows.

In the costume design, we show the three binary colors. By the way, these little figures are mimeographed and given to each child; they are mimeographed on manilla paper, the cheapest paper we have.

In the interior work, the primary colors reappear. In other words, the knowledge is cumulative. They use what they learned in the first year and combine it with what they are to learn in the second year, but the stress is to be placed upon the color of the second year. In each case we go one step further, and we use the same—the orange of the curtain, the green of the curtain here, the gray green wall, the orange of the lampshade.

In the third year, we go to the tints of a color, and the teacher prepares one of these charts. In each case, the teacher of the grade prepares a chart as large as this and hangs it at the front of the room so that all the children may see these charts, and we have here the full strength of the color, as strong as it is possible to get it in pigment, and two tints. They learn that a color may be changed by adding water, say, to water color, or white to the other colors, so that you may have strong color in lighter color, and still lighter color, and that is emphasized in connection with the primaries and binaries.

In costume, we show the mimeographed figures in tints of the color, yellow, red, green, orange, and the dolls are now dressed in tints. It gives very much the youthful quality in dress.

In the fifth year, we use the six colors with the neutral disk at the center, and now we begin to use the first harmony, the complementary harmony, and in order to isolate those colors, we have made a disk that will pick the opposite colors of this chart. Here are six colors at the opposite ends of the diameter; those two colors, like violet and yellow, are complementary. They increase, they intensify the harmony, if they are used in connection with black, white, or gray. The opposites like red and green intensify, and the same way with orange and blue. Where they are used in the right quantity and right place, they produce complementary harmony, and this is to show that harmony. The reason for that is that it isolates the two colors you want and keeps the child from confusion as to the others; it being rotated, he can select any two colors. It emphasizes and stresses that part. It is shown in the same work, the same four subjects, by the complementary scheme in the color design, in the costume, and in the commercial advertising, and in the interior.

In the sixth year, we show the complementaries. Here we take up the matter of gray colors, and they learn from that same scheme. There we show that mixing of a little green with this red will give a gray-red. A bit of red mixed with green will give us gray-green, and so on. This is emphasized through the sixth year, and is carried along in the work.

In the seventh year, we think of the analogy scheme. That in rotation will give you any three colors which with black, white, and gray, will give you harmony, which is analogous. It is one of the most pleasing color harmonies that we have.

In the eighth year, we use what is termed a split complement. For instance, yellow and violet are complements; if I take out the yellow and use the two colors on either side, I get what is termed a split complement, and that gives a fine color harmony. In the eighth year, we used the triads—the triads being in three colors, or the equilateral triangle. This forms an instrument which has been carried through in the eighth grade. They learn this as a foundational proposition, a good deal as arithmetic; it is carried through the eight

grades; not that the child knows all about arithmetic. The arithmetic will grow with him; some will use it in business some will perhaps not use it at all, but up to this point it has been a definite instrument. The impromotions come in all along the line, but mostly after they have gotten this as a foundational exercise, a good deal as the five-finger exercises on the piano it gives you the foundation, the technique of the piano; the same way with the violin. After that comes the interpretation, the expression, which they truly call emotion.

Here is a definite scheme. It works in definite cases; it is not the last word; it is not perfect, but it is something we can build on, and something we can actually teach. The grade teachers in this case have expressed themselves in no uncertain terms. They say, "At last we have something we can teach." I feel that this combination is good but I feel that such a combination is not; I feel that this orange is simply atrocious. The grade teacher is odd and she does not understand, but where she gets a definite equation or color notation, it is something she can understand and something she can get across to the children.

ART AN UNDEVELOPED NATIONAL RESOURCE

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I had a remarkable experience which changed my line of thinking. By training, I am an artist, but I am looking at Art through different kinds of glasses. There are three points I want to bring to you.

The first is in regard to Art as being changed by the changing conception of education. Education is a science. You people claim to be art teachers. Then you are educators in art, and whatever changes are made in the science of education, or in the conception of education, make it necessary that you change too.

The second one is, the economic values of art. You know art teachers are notoriously poor salesmen. They don't know how to sell their goods, and every single one of them, every single one of us, is a salesman from the time we are born to the day we die. We are selling ourselves, our ideas, our ideals, our abilities, our powers, and I want to tell you right straight to your faces that art teachers are the worst salesmen I know.

The third one is the social phases of Art. One reason why I am glad to get back home again here, out West in God's country—and this is God's country—I have been in the East for three years, most of the time working for the government in the steel plants and in the coal mines, dingy, dirty, degraded. No American citizen should be allowed to live under the conditions these people live under and work and have their existence. They do not live; they barely exist, and I got most awfully tired of the wretchedness and the dirtiness, and I am glad

to get back here, and I wonder if I can make you feel so, what William Morris meant when he said, "That which I mean by art is man's expression of his joy in his labor."

What is scientific management doing to our industries? Bringing them all up into mere automatic occupations, separating the artistic features of it. What are we going to do about it? And you art teachers have got to bear your burdens and your responsibilities with the rest of us.

Let us take up the fact that education is a science. The general thing, throughout the colleges of education is to change their degree from Bachelor of Arts or Bachelor of Philosophy to the Bachelor of Science. In organizing a new department which I am doing at the University of Minnesota, I have been face to face continually with that point of view. "We will give the Bachelor of Science instead of Bachelor of Art—Art, not Arts—Liberal Arts. If we are going to make our degree of any value at all, it has got to be comparable with other degrees in science, engineering, medicine and law. In other words, we have got to be scientific in our analyses and in our thinking, and I want to thank Mr. Froehlich for this splendid scientific analysis that he has made of color—scientific analysis, and then its adoption in education.

I wish I could get you people to read that very small bulletin issued by the Bureau of Education, "The Cardinal Principles in Secondary Education," worked out by the N. E. A. commissioners, and published by the Bureau of Education, a little bit of a thing; you can skim over it in fifteen minutes, but it will take you about a year to read it and re-read it and adapt it. I would like to be able to have the power to compel every one of you to read it. I wish I could read it in terms of art work, and they talk about art in there.

We are changing from the intellectual discipline idea of education to education as a social process. That is what I want to get across to you people, my first point, that if this is done in all other lines of work, history and writing and reading and arithmetic, and all the rest, that then art has got to change with it. We have changed our manual training over, haven't we, in vocational education? Some of you may agree with them; some of you may not. I did not at one time. I do now. Even vocational education, radical as some of our academic brethren think we are, we are even now twenty years behind the time, behind our rapidly evolving and changing industrial organization.

We have got to be impersonal in our thinking; we have got to be unprejudiced. I was talking several months ago, with a very splendid woman, who was a supervisor and art teacher, sincerely standing for what she thought was right, and she said to me with tears in her eyes, "Mr. Payne, I have been here for twenty-two years, and it has been twenty-two years of constant warfare, fighting." Now, she just got

the wrong idea of it. She has got to be a better salesman. Sell your art to your students, to your community; make it a social art, make it community art, make it something that they can carry on out into their lives. That is what we need.

Education has changed with the times. If you go back in the history of education, you will find there are twenty-seven times all the way through the history of education that education has changed its aims, its purposes, its methods, and its motives, and its objectives—just a right-about-face. They change to fit the environment and need of the social order in which they find themselves. Now, education today is going through a reorganization, and we too, I believe, have got to change with it. We cannot hang onto the things that are in the past. We cannot look forward like the Chinese do. We have got to look forward and look upward.

Now, about the economic part of it. We are American people and I am one of the hundred per cent Americans, but with all of that, we must not do what the ostrich does, stick his head in the sand and thinks nobody sees him. We think we are a great nation, a great people, but we are as yet neither a great nation or a great people. We are an accumulation—yes, a melting pot with quite a little dross, quite a little in the bottom, and quite a little scum on top. We are prosperous and getting along very rapidly because of that fact, because of our unprecedented natural resources which we didn't have sense enough to conserve and save for ourselves and our children. One of the great reasons for the high cost of living which we are talking about so much is because our parents and our grandparents wasted our natural resources and were extravagant and did not conserve them. From the standpoint of the sociologist and biologist, this country is going to be the greatest nation the world has ever seen, and these people of American blood are going to be the greatest race the world has ever seen. There is absolutely no question about it. We are going to be, but we are not as yet.

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We have in our industries scientific management. Scientific management is coming in and changing the complexion of our industries. It is a thing absolutely necessary for production—repetitional processes and somewhat automatic operations. Those things are already coming along. How is it going to affect our school work? How is it going to affect vocational education, manual training, the teaching of English history, geography, and all the group? Then how is it going to affect the teaching of art? In scientific management, they have already arrived at the dead level of perfection. In regard to methods, there are no longer any trade secrets.

I remember when I worked in my father's factory we were always on the look-out for spies from the other factory, men sent there to

find out how we did things, get our supplies, our prices, just exactly what we did do. If you went to a plant, there was always some place where no one was allowed to go. They are all wiped out. There are no spies—at least we believe there is not these days.

The one undeveloped national resource this country has is good looks. Good looks, or as we pedagogues call it, art. That is what it amounts to.

I want to give you a few figures about art as an undeveloped national resource. What do we think about nowadays when we say art? We have developed from the stage of art for art's sake, and now we are talking about art for life's sake, and that is a very fine advance.

Dr. Dennis Ross Howard, of Harvard, says:

"Art for art's sake is the most delightful occupation under the sun, but the meanest business on earth."

I think we will all agree with that proposition.

I want to develop this economic phase of art with you just a little more. I am going to read a quotation from Frank Alvah Parsons, President of the New York School of Fine and Applied Art. I do not want you to think it is any peculiar idiosyncrasy which I myself have. I am not at all interested in art for art's sake. I used to be. I do not think there is any person in this audience who gets more genuine joy or pleasure out of a beautiful picture, or anything like that, but that is not the prime necessity of our civilization at the present time.

Mr. Parsons says:

"Even if we accept the purely material viewpoint, a nation can ill afford to ignore the money value of an art education which is a natural element of our industrial life. We must, in the near future, not only supply ourselves with textiles, furniture, carpets, wall papers, clothes and other necessities formerly furnished by Europe, but we shall, in many instances, be asked to supply South America, and even Europe itself, with these things. In matters of natural resources, mechanical skill and physical energy, we are ready. In matters of art, we are crude, uncertain, and, worst of all, in many instances satisfied. Until there is a changed attitude as to what art is, we cannot compete even in matters of commercial rivalry, for art is as essential to man's perfect satisfaction as any material quality can be."

Now, the one nation which has made art and beauty a national economic resource is France. In Glasgow, Scotland, they make ships, and if you have ever been up the Clyde, you know what an awful place that is; they do produce ships, it is true, but the degradation is very bad. Berlin, chemistry and chemicals. Manchester, textiles. London, business, and New York, trade, but Paris, art and beauty. And here we thought even in this country that we were going to get away with the wreath of supremacy in art from France, but you know

we cannot. They have got too much of a start.

French economists place a monetary value upon the new production created by Napoleon there of two hundred and fifty million dollars per year. An artist did not say that, but their economists place that value upon the beauty that is in Paris itself of two hundred and fifty million dollars per year. They figure that Paris is receiving a twenty per cent dividend annually on her investment in beauty and in art.

Let me give you just a few more figures about it. In 1913 the value of industrial art in France exceeded our bumper wheat crop, and that was the year we had the largest wheat crop we had ever had.

In 1913, Americans paid four hundred millions to enjoy the art and beauty of Europe. In 1913, we imported from France \$4,510,948 worth of women's clothes. What did we buy? Did we buy the clothes? Oh, no! The women of America can cover themselves more or less just as well as anybody else, but what did they buy? They bought the art, that is what they bought. We can make just as good clothes possibly as anyone, but we cannot produce the art. We are not doing it anyway.

In 1916, the United States produced \$2,500,000,000 worth of women's clothes. How many of you people made the clothes you wear, and yet we go along in our public schools teaching girls to sew and we know they are not going to do it. It is cheaper to buy. The cloak and suit trade in New York City alone in 1916 exceeded \$2,150,000,000.

How did this happen in France? It is because of the genius and foresight of one man—Colbert. He was an economist, he was an industrial organizer, and he was not an artist. He was adviser to Louis XIV. You know they had a very extravagant court. They got from Italy the luxuries, all the artistic luxuries that Italy could supply them, and Colbert said, "Why do we have to spend our money in Italy, building up Italy, building it up, making it our rival, when we could produce those things ourselves?" And so he was the father of the artistic France, the beautiful France, and he recommended to Louis XIV the acquisition and the subsidizing of these vast various factories which we know so much about. That statesman developed art as an economic national resource, and that is what we want to do. That is the thing I want to get across to you teachers, because frankly I don't know who is going to do this job unless you people do it; that is the responsibility that you have got to carry.

I am mighty glad to quote here from Mr. Frochlich. I hope he has not changed his mind since then:

"We have exported vast quantities of raw material to be transformed into manufactures that we immediately proceed to buy back at an enormous increase in price. We have sent the rich, raw products in carloads and shiploads. They have been returned to us in boxes bearing the significant legend,

'Made in Germany.' Slowly we realize that the only way for a nation to establish itself upon a firm and enduring foundation is to become her own source of supplies, to produce her own necessities, her own comforts, her own art.

"Art is a national industrial asset. Our chief commercial rivals are all in advance of us in this, and are even now actively striving to increase their lead."

We have as a nation, however, produced one thing and I hope you won't laugh when I tell you about it, and people do laugh sometimes because it sounds so funny, but they cannot see the significance, and that is the only art originally possible that we have ever produced—the American log cabin. That is the only thing we don't still copy from somebody else.

"In individual business the possibility of great supremacy—in the use of scientific devices, in efficiency in production, in economy in materials, in the development of profitable by-products—no longer exists. Beauty in design remains practically the only possible means of achieving an individual triumph."

The United States produces annually in furniture 250 millions of dollars, and most of it is simply atrocious; carpers, 50 million; wall paper, 15 millions; lace curtains, 55 millions. One furniture store alone carries 7,000 different designs in furniture.

Let me read what Dr. Snedden, of Columbia University, says about art:

"Perhaps the functions of art in ministering to the primal needs of society are not what they once were, and so, as a consequence, while society may still be willing to spend of its energies and resources freely on art, it now refuses to take that art seriously because it cannot make of it a means toward realizing the more serious and worthy things of life. Strong men decline to make the production of art works a career, although they are willing to see their daughters follow it as a lightsome and not too prolonged vocation."

That is a pretty strong thing to say about art, but you know in certain measures it is true. He says also:

"Must we continue to find, indeed, that as one of the penalties for our sins our art leaders and spokesmen have themselves been afflicted with a confusion of tongues, and have scattered into the wilderness of conflicting cults, irrational counsels, and wilfull blindness to the essential characteristics of the period in which we live?"

I feel that is true. We do not as art teachers advance art education; we do not advise the best, and we are afraid to face the truth. We are not scientific in our work, and in our thinking, and in our teaching.

What about the art schools of this country? What are they going to do? In 1914, there were 3,767 artists, painters, sculptors and illustrators out of a population of probably over one hundred million in this country. In 1914, there were 109 art schools in the United States, with a total of 6,252 students. Can we depend upon the art schools of this country or the artists to develop these great economic national resources? Only one per cent—this is the result of a survey—of those trained in these schools become professional artists. The rest of them cannot because they are poor salesmen and they haven't got the goods which the community, which the industries want.

There are 620 colleges in the United States, of which 231 have some kind of art course, and in 18 of these 620 colleges, art is on an equality with the rest of the studies. In the rest of them, it is just simply a sort of offshoot, and just a dumping ground full of snap courses. Can we depend upon the artists themselves?

Unfortunately in this country, we interpret art by pictures. I am not saying anything against pictures, but I am speaking as strongly as possible against the interpretation of art entirely in terms of pictures and in terms of drawing. The artists are too busy sulking and groaning and ghashing their teeth, saying the public does not understand it, does not appreciate it, won't buy their goods, and yet, on the other hand, they are too busy fighting among themselves. I wonder how many of you understand the difference between the different "ists" and "isms" in which painters are all broken up! Did you ever see one of them who could agree with the other? One man says, "It is wonderful." Another says, "It is rotten." We don't know what to do about it. We can't expect very much from them.

Can we expect very much from the museums? I fear not, although there are some signs, particularly in the Western museums, that they are getting a new vision. They are realizing the museum is not a place to keep art; it is a place from which art goes out.

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Germany sent a commission over to this country just before the war. The chairman of that commission says, "I am greatly astonished at finding the evidences of the public school drawing and art work so slight in the homes and particularly in the industries." So slight!

Another member of the commission says, "The prospect that German industrial art will some day play a leading part in the American market is not precluded, seeing that the industrial art of America is as yet quite undeveloped."

He goes on to say, "The instruction in industrial art in America is mostly carried on as incidental instruction in art academies where the work is very poor."

Of course, we cannot expect anything good to come out of Germany either before or after or during the war, but we must often face facts as they exist.

Now, the question about the need for art. Let me read you a resolution which was just recently passed by the American Institute of Architects:

"Whereas the allied arts have developed greatly in the United States during the past five years, and

"Whereas the demand for designers and craftsmen in this industry is greater than the supply: Be it therefore

"Resolved: That the Board of Directors of the American Institute of Architects urge the establishment of industrial art schools in the United States where designers and craftsmen may be adequately trained for the allied arts and other artistic industries; And be it further

"Resolved, That copies of the above resolution be sent to the President of the United States, the Secretary of the Interior, the Secretary of Commerce, the Commissioner of Education, and each member of the Federal Board for Vocational Education in Washington; to the Commissioner of Education in every State; to the Art Alliance of America at its headquarters in New York."

There you get something from the architects.

It is startling in some of the towns of this country to see the new type of art teaching. I want to read you a quotation from James Parton Haney, Director of Art in the High Schools of New York City, and then I am through.

"The public school art course is getting farther away from the easel-painter's studio. The standpoints of the two are different. We are endeavoring to make our art courses efficient in the sense that the time of the pupil shall not be wastel; that he shall be taught mastery of himself as well as of his materials; that he shall not be taught something merely because it has tradition behind it; that he shall not be taught anything that he will have to unlearn afterward; that he shall not be given the bad habit of working only when he feels like it, but shall be given an art education thoroughly practical and adjusted to the needs of modern business life and technical proficiency."

Another thing I would like to dwell upon is the social order, but I will skip that part of it. This Western Arts Association has a great past. What about the future? Are we going to live upon our reputation and our record? Are we going to look backward and say, "How wonderful we were! or are we going to stand with our face up toward the light and toward the truth, looking forward and not back, upward and not down, facing the truth, facing the facts, facing conditions fearlessly, and do our share, do our part in the development of art as something that is vital in the life of every individual, something

that has an economic value in every one of our industries, something that is a contribution from the art people to civilization and to the new social order which is coming into this country of ours? When you do that, when you get that into your hearts, into your minds, into your consciousness, you will have two things coming to you. One is, you will be of great service to the individual and the people, the public school children, the common public, who need all of the joy and all of the happiness that they can get from any point of view, and greatest of all, you will find joy in your own work, in your own service, in your own sacrifice, and that is the greatest joy that can come to any man, the greatest blessing that can come to any man, and I think that that blessing will be yours.

ADVERTISING AND SELLING OUR GOODS

C. VALENTINE KIRBY

DIRECTOR OF ARTS, PITTSBURGH PUBLIC SCHOOLS

In spite of the fact that Art Education has become more or less of an established institution in our public school program, and has functioned more or less successfully for a period of years, there is, nevertheless, I believe, a consciousness among us that the subject we represent has not altogether come to its own, or is yet regarded as a necessary and indispensable factor in that program.

Perhaps we have seen the time allowance for our subject reduced to periods impossibly short for satisfactory accomplishment. Perhaps we have attended principals' meetings, institutes, etc., and listened to lengthy addresses on tests and measurements without a single reference to those things to which we are devoting our best efforts.

I perused the program of a recent meeting of the Superintendents' Department of the N. E. A., looking in vain for the word "Art." I sat as politely as possible through a report of this convention made by thirty educators who had attended. Not even a crumb from anyone of them that would indicate that there ever was such a thing as Art or Art Education. Could there have been such an omission in a similar gathering in France?

The ranking and consequent salary of Art teachers and supervisors is frequently found to be less than that of the average academic teacher. When it becomes necessary to effect economy through a reduction in the teaching force or the cost of supplies, I think it is not necessary to tell you where such economy is first effected.

To many of you such thoughts and experiences may be entirely foreign. If so, I am glad. But I am sure you will agree that all the children of all the people and all the people of all the communities and some principals and superintendents haven't yet accepted Art as necessary to their soul's salvation. A distinguished university head recently wrote: "Art is still to the American mind in general a book of seven seals that has yet to be opened to the public comprehension."

The thought which I have in mind, then, is that something more is needed than even the most effective and devoted work in the classroom, that we need to become salesmen of Art Education. In other words, we must get out and advertise and sell our goods. If we are to do this effectively, we must:

First: Know our goods.

Second: Believe in our goods and create a consciousness of need for them.

Third: Make our goods worthy and desirable.

Fourth: Advertise and exhibit them in such a manner that they will:

1. Attract attention.
2. Excite interest.
3. Make friends.

1. *We should be thoroughly acquainted with our goods.*

Our conception of Art itself should first be broad and comprehensive. We should regard it as the expression of man's most beautiful thought and deepest feelings—not on canvas alone, but in every material and in every age and clime. Thus it is that when all else has passed away—and so much is just mere business—the Art of a people along survives. It is so easy to lose ourselves in the maze of cardboard and perspective problems and lose sight of our main objective and our relation to the larger idea of Art. It is the essence and spirit of Art that we are trying to pass on to a multitude of boys and girls so that they may in turn grow up to live beauty and express it in their work and their lives. Verily, we are dealing with a human product that unfortunately cannot be weighed and measured like shoes and soap in the coin of the realm.

2. *We should believe in our goods.*

If we do not, others will not. The need for Art in any community is a fourfold one:

1. Aesthetic influences working for a fine public taste in the people at large.
2. Institutions for the training of creative artists in all lines of expression.
3. Provisions for the training of teachers to teach Art.
4. Opportunities for workmen to become better workmen.

We must not only recognize these needs, but we must create in the public at large a consciousness of these needs. Art must be shown to be something else rather than a luxury and to be democratic rather than aristocratic in spirit and function. It must take its place as a real necessity in individual and community life.

"Not alone are the cattle grazing on the hillside and the fields of ripening corn necessary to man's existence, but likewise the gentians blooming by the wayside, and the thrush singing in the thicket."

3. *We must make our goods worthy and desirable.*

Awhile ago they were unworthy. They had very little to do with the real needs of our commercial and social life. All this is changed. We are working today with an understanding and spirit of service that cannot help but function in terms of finer manufactured articles and general human betterment. Our public taste has improved with leaps and bounds. Our manufacturers realize the necessity of meeting this finer public discrimination. The noticeable improvement in our home furnishings, the improved taste in dress, the awakening in matters of civic beauty, and the greater interest in Art affairs generally cannot be attributed to the Statue of Venus in a museum, but rather to the broad democratic Art Education in our public schools. Our public taste never has been and never can be any better or worse than the standards set up in our public schools. It has been my privilege to have been associated with the Survey of our Art Industries, now being conducted under the auspices of the general Board of the Rockefeller Foundation, and the National Society for Vocational Education. So far as I know, this is the first organized effort of broad scope to actually go into the industries and determine the actual conditions and requirements for the manufacturers for designs and designers on the one hand, and the conditions under which their needs are being met by our own Art schools on the other. A consideration of the relative merits of American and foreign designers forced the following conclusions upon me:

1. A lack of thoroughness and foundational background in our training.
2. A false encouragement on the part of teachers, oftentimes, which probably thru ignorance minimized the length and more severe character of the training required.
3. Lack in this country of the inspirational atmosphere which surrounds students in most of our foreign centers, where they live in intimacy with old documents and Art is in the very air they breathe.

These apparent deficiencies in our training not only account for the "lack of originality" that establishment heads report, but are in turn responsible for the abominable "piracy" that is the bane of every high-class producer. Less feebleness, more creative ability and independence will naturally make such "piracy" unnecessary.

Our product, then, must hold something of that quality of painstaking effort and care and thoroughness that is a common and constant Art quality and found in all that endures. Having a product of such value, we should not cheapen it by our own undervaluation of it, and we should, above all things, never apologize for it. So long as a four year Art training does not receive the same recognition and compensation, hour for hour, and year for year, as a four year academic training, then is there work for us to do in advertising and salesmanship.

I have been in establishments where the designer, thru his original conceptions and creative ability, counted much for the prosperity of the establishment, but don't assume for a moment that he was the highest salaried man in the establishment.

4. We must advertise our goods.

Our own product has been found to be the most effective means of advertising all other products. We need to take advantage of every opportunity for the attractive display of our goods. We do not exhibit our own work as frequently or as effectively as we should. Then, too, we should advertise our goods by being ourselves worthy examples of the thing we represent. In other words, we should practice what we preach. We don't always do so, and unpleasant pleasantries are sometimes passed at our expense. I find the following at the top of the list on a Teacher's Rating Score card of one of our important State Departments of Public Instruction:

Appearance.

Attractiveness.

Cleanliness.

Neatness.

Appropriateness of attire.

Again, we talk too much and draw too little. There is nothing that appeals more to children or impresses teachers, principals and school authorities as much as to see an Art teacher or supervisor really draw—as she should be able to do and do frequently. Let us talk more in our own language.

Every community is proud of its industrial and commercial leaders. No less important is the discovery and conservation of those exceptionally gifted along Art lines. Our Art Education is democratic in its spirit and justly so, but a community must be made to see the need of saving and developing those of exceptional talent who hold the promise for the future of our American Art. No more the starving Artist. No more need we fear to encourage a pupil to follow an Art career. The opportunities are so many today that the real danger is in the opportunity—some opportunity coming before the preparation is sound and complete.

And now, above all things, let us not forget that we are dealing with a product that yields not alone the material returns of trade and commerce, but yields those more noble and glorious ones that we may define as spiritual.

Efficiency, increased production, industrial supremacy have produced more striving, more unrest, less joy, less content, less happiness. Our men of vast wealth, paying enormous sums for works of Art they may own, but haven't the sympathetic understanding to really possess in the truest sense of the word, are examples of the futility of man's efforts to satisfy an entire existence by material accomplishment. Among labor there is great social and industrial unrest. As we con-

template the Art that has come down thru the ages, it invariably speaks the joy and sincerity of its creator. Is it altogether impossible to interpret this satisfaction and pleasure in doing good work in our industrial life of today?

Above all things should we put over this spirit of beautiful and sincere performance in every phase of our Art and Industrial Education that our boys and girls may grow up to a possession thru appreciation, a desire to excel thru conscientious performance, and a belief that it is not enough to make a living but to acquire those higher values that work for sweet and wholesome living.

Do you feel sometimes, or are you made to feel, that you are engaged in one of the frills or unnecessary adjuncts of education and that cube root and measurements and the knowledge that this is the highest mountain in the world, and that the longest river, is vastly more important? Think on these things—I believe in them. Man cannot live by bread alone.

Do you see any connection with Art Education and an eight hour or less working day? A shorter working day means a longer loafing day unless there is provided constructive recreation and re-creation in its truest sense. I believe the disposition of men's longer leisure hours is one of the big problems of the day.

I quote the following from a book entitled, "Art in Education and life":

"If, in education, we are obliged by the very notion of its nature and aims, to consider the needs of the whole man, the failure adequately to recognize the aesthetic factor contradicts the idea of education so far set forth; and this failure cannot but result in dwarfing the social efficiency and happiness of the individual, and therefore, if it is to be developed in our social life, a freer and more discerning policy is called for from American education. As President Eliot says: 'It is undeniable that the American democracy has thus far failed to take proper account of the sense of beauty as a means of happiness and to provide for the training of that sense.'"

There can be no "all 'round man"—our boys and girls can never stand "four square" until the physical, moral and intellectual sides of their natures and development are crowned by the aesthetic.

The following is a quotation from Will Grant Chambers:

ART IN EDUCATION

"I believe in Art because I believe in richness of life. I believe in Art Education because there can be no complete education without it. I believe in Art Education not as another subject added in the curriculum, but as an attitude and a spirit which suffuses the whole. I believe the industries, ex-

pressing the fundamental instincts of construction, are its roots; I believe that Science and History are its twin stalks; the former developing insight and skill, and the latter giving a sense of value in all which education involves. I believe that the Arts in the broadest sense of the term represent the flower of the plant, not only adding beauty and fragrance, but making possible a rich fruitage of democracy's best human institution. I believe that both in education and in life Art is present wherever a process calls forth in a single express the whole nature of the individual, in an attempt to interpret and to satisfy a social need."

BALANCE IN COMPOSITION

ROSSITER HOWARD

DIRECTOR MINNEAPOLIS INSTITUTE OF ARTS

After having said yesterday that no theory could ever produce good design, I am going to spend a half hour talking about theory, for theory is necessary, of course. I believe in it. Some of my audience yesterday though I did not believe in theory. I believe in theory just as I do in English grammar, but we do not start teaching children English grammar; we start teaching them to talk, and then to read, and then to write, and after they have had considerable experience in the material they are handling, then we begin to teach them the theory of the relationship of the elements, and that, to my mind, is what we ought to do in Art, as we do in almost everything else.

I have often wanted to do it here and carry out Mr. Kirby's suggestion that Art teachers ought to draw, and I told Mr. Cabe that I would like to see something provided here, but, I am somewhat relieved he is not here and has not provided them, for I confess I cannot draw. I was going to do it anyhow, for I believe that bad drawing is better than none when trying to get across any idea, because we learn through visual experience, we would be less likely to make a false theory, and I believe there is a good deal of false theory in the matter of design.

I read a book by Denman Ross some twenty-five years ago which was exceedingly interesting, and he started me on the study of the theory of composition. It was his book on composition, but his theory of balance troubled me for he took for granted that every panel is balanced on a central axis. I couldn't quite see why he took that for granted, and I couldn't quite see any necessity for it.

Later on, Mr. Henry Turner Bailey set me reading a book on "Philosophy of Beauty," by Gertrude Puffer, and she further troubled me by accepting perfectly naively Denman Ross's assumption that a panel should be based on a central axis, and she explained it, as they all do, by saying that "a man on one side of the panel was balanced by a blank on the other side."

Now, here is a panel, and I am approximately in the center, and you have a more or less satisfactory balance. If I move over to this side, you do not have a satisfactory balance. So far we will agree. I move back here—I cannot see just where I am, but I feel this back a little nearer to me, and a little further space from here and I feel comfortable, and I feel from my experience in looking at panels that you feel comfortable too, and according to Denman's Ross's theory, your vision is attracted as much by the blank side as it is by the side where I stand, and I do not believe it. Isn't it rather true that when your vision rests upon me, and I will ask you to let it do so for a moment—isn't it rather true that while your vision is resting upon me your vision feels balanced? I am not talking about the panel. I am talking about your experience, that while you are looking at me, you feel a certain sense of repose, with a certain equivalence of pull right and left. In other words, you feel the sort of concentration of power from this back here as equivalent to the larger space upon that side, and your vision is comparatively at rest. Whereas, if you should allow your vision to rest in the central point of the panel, you feel constantly a greater pull on this side than you do on that.

Mr. Henry Turner Bailey said, after I suggested that to him, "Well I make a distinction between center of balance and center of interest."

At present, there is not. At present, the center of interest is the man who is talking, and the center of balance is in the same place. Therefore, you feel a sense of repose. I move over here and the center of interest is not in balance, and you have a certain lack of repose. Therefore, we must seek our sense of balance in our experience, the feeling within ourselves of right and left pull when we are really looking at a panel, rather than look at a panel and assume it is balanced right and left.

It seems to me worth while for a few moments to think what we mean by the word "balance." We get into all sorts of trouble of taking a word out of life and using it technically and in a half dozen different senses. The word "balance" meant originally "to dance"—"ballett," "Balla." The old 13th century French troubadours used to sing, to "balla," a la vie balla. Then "balancer" was a certain kind of ballet; "balancer" was to go back and forth, as partners.. In the second one, in the "balance," there was an idea of alternate, equivalent, opposite motion, and from that we get to use it in scales which go up and down, and the French speak of the seesaw as a "balance"; it is alternate, equivalent, opposite motion. That is one kind of balance, and from that we get the idea of opposite, equivalent tendencies to move, which neutralize each other; that is, of stability; that is, simultaneous, opposite, equivalent tendencies to motion.

Now, simultaneous, opposite, equivalent tendencies to motion neutralize each other. Alternate, opposite tendencies to motion create motion. We have both of those things in actual life.

Then there is another kind of balance which we have in actual life, only we do not call it balance until it is disturbed. If I sit on the edge of this table, it tips over, it loosed its balanced, but neither I nor any of you were conscious of anything in that table called balance. It is stability, not balance. We have that kind of balance in aesthetic relations. When everything is crowded into a room, it is out of balance, but it is only when it is grievously out of balance that we are troubled. If everything is moderate so that the room stays still, we do not have any positive sense of balance there, but ordinary stability, like you get in that table. That is not a positive aesthetic experience. Only when the balance of that table is disturbed does it become aesthetic.

There is another sence in which we use it. If as many of you ladies who could be up on the platform would come up here with me, there would be a lack of balance. That kind of balance is entirely different. It is like the balanced rations. Balanced rations are a matter not of alternate tendency to move; they are a matter of harmony, or proportion. If you have too much blue in a picture and say you want to balance it with some orange, that is not balance at all; it is harmony.

If you have a dinner which has too much starch in it and you want to put protein in it, we speak of it as balancing, but only by a wide analogy. It is not a matter of balance; it is a matter of proportion and harmony, and I would be very glad if we would get that word out of our aesthetic vocabulary entirely in that connection. Don't let us say a design has too much of one color in it and we will balance it with another; unless you want to confuse the student, for that kind of balance has no relation whatever with the other kinds of balance which are actual, aesthetic experiences.

So we have the four balances; the first two aethetic, and the latter two hardly fit to be called balances. The first two opposite, alternate, equivalent tendencies to motion, and the second, opposite simultaneous equivalent tendencies to motion; and then third, stability—and don't let us call it balance—and fourth, harmony, and don't let us call that balance.

Now, having got this out of the way, let us turn to the pictures here for a moment and see what they show us of balance in design. *

Portrait of Innocent X, by Valasquez—

There is a very famous picture by Valasquez. There, is it not true, your vision is held by the eyes of this old Pope, Innocent X. When your vision is held by the Pope, it conveys a certain quality of

* (Editors' Note—The lights were here turned out and the stereoptican lantern used. As most of the discourse referred directly to the pictures on the screen, without which the text loses its value, only such extracts are given as are of interest.)

repose, and then down to this hand, and back, but always, every time, it goes back to the face it feels a greater repose. In other words, there is an axis of balance running, not through the center of the panel, but through the face of the Pope. If the balance ran through the center, your picture would have to be of equal attraction, to my mind.

After talking about balance the other day with the class, they said, "What do you do with occult balance?" Occult balance is a word used to apply to such complicated elements which cannot be analyzed. It is easy enough to analyze spots. It is not easy to analyze intellectual interests, represented motion, dark spots and light spots, and line movements. Those things are so heterogeneous and so complicated that we cannot analyze them, but what we feel is a certain strength of attraction here and there, and that strength of attraction is what balances. So, if anyone needs that word "occult," they can use it.

* * * * *

Madonna of San Zaccaria, by Giovanni Bellini—

The vision rests upon the beautiful head of Mary and you feel a certain quietude through the lifting of the eyes and holding them still. That spiritual quietude that comes over you is due to the perfect motor quietude of your nervous system.

Madonna of Giorgione da Castelfranco—

Here we have a right and left balance, but you notice your vision does not rest long on the head of the Virgin. You feel another secondary and momentary balance and your vision plays over that, up and down and across, so that even in spite of its expression of perfect right and left balance, because of a lack of up and down balance you have a constant play and movement and rhythm, rhythmic experience which is a larger part of the aesthetic experience of that painting.

Fete Champetre, by Giorgione—

Here we have a right and left balance of these lovely nude figures on either side of this group of men playing the musical instruments, but isn't it true there your vision cannot rest upon the central group, but plays from one to the other because the stronger attractions are on the side, and instead of having repose and quietude, you have rhythm and movement? And that is due to the fact that the center of balance is not marked as a strong center of interest. Always that makes for rhythm, and this is characteristic of Giorgione, particularly characteristic of him.

Portrait of Cardinal Bentivoglio, by Van Dyck—

Here we have the center of interest a little on one side, and there your vision rests much longer than it did on the Giorgione pictures, and then it plays out from here and back to that head. In this portrait then we have balance not on a central axis, but an axis on one side. What is balanced is not the panel exactly, but your experience, your field of attention—and by the way, that express "field of attention" is worth

everything in design. Your field of attention is balanced. Think of it when you get on to some of these designs.

Philosopher in Meditation, by Rembrandt—

Rembrandt is the most subtle in his use of balance and he has unusual ways of doing it. A thing that Rembrandt does again and again is to have a strong center of interest, strongly balanced by spots around it, and then enough of his panel going on one side to act as a pull on your attention, and that pull affects you emotionally as a sort of yearning, a sort of desire for something you have not got, and yet you cannot break away.

* * * * *

This matter of balance is not so simple. It is not easy to teach to the children, and I know that to be the question which would come next, for I was going to stay here and talk with some of you afterwards, and I would ask you don't try to teach them the theory. Experience the theory yourself. Recognize what we mean by the word, Don't let us say balance when we mean harmony. Don't let us say balance when we mean stability, because balance is more subtle than stability, and when we say it, let us recognize whether we mean opposite, simultaneous, equivalent, which means repose, or opposite, alternate, equivalent, which will mean rhythm, and if we have the two and do not try always to balance our picture in the center, we will have a desire, a subtlety of design which we never can have through the old symbol I explained.

ENVIRONMENT IN DESIGN—A MESSAGE FROM OREGON

ESTHER W. WUEST

DIRECTOR OF ART, PORTLAND, OREGON

Design, primarily, is the result of a realization of the need for beauty.

In all stages of civilization, we find evidences of this desire for the beautiful. It is found in varied forms of expression and in many degrees of perfection. The well developed race must have an artistic sense and the more highly developed that sense of appreciation becomes, the more satisfaction there will be in life.

The subject of design is vital today in relation to industry and is one in which its varied forms of expression will stand as the character of the people, the stage of their development, and the development of their aesthetic sense.

We can realize the necessity of high standards in design only when we consider the number of professions and industries that are dependent upon the excellence of their designs in the selling of goods.

From the first simple plan to the finished product, many different groups of people are involved, including designers, craftsmen, work-

men, salesmen and buyers. The producers of the goods form a very small group as compared with the consumers. Therefore, the masses form the vast audience called upon to appreciate and use the work of the producers.

Since a product is usually judged by its excellence in design and its craftsmanship, and opinions as to what constitute good standards in art vary with the masses, it is most essential that our efforts be directed in developing high standards of appreciation. This development of good taste which will eventually raise standards of appreciation and bring together all groups of people concerned may be reached through the various agencies of education.

The public schools are a most important factor in the development of the art education of a nation. We cannot begin too early to emphasize the elements of beauty in our surroundings, to teach the principles of color and design and the laws of harmony. It is our duty to train this army of children to know and love the good and the beautiful, for although some may become producers, the greater number will become consumers and should have an intelligent understanding of the essentials of good design and workmanship, thereby setting better standards of taste in the community.

In considering the subject of Design in Environment as a school problem, we may find unlimited possibilities for self-expression, the development of the creative faculties and appreciation and love for the beautiful in one's surroundings. We should study our own needs and adapt what we find in our own environment to our daily problems, establishing an art that is individual and characteristic, for it is by new interpretation and application that general truths are enriched and reinforced.

NATURE AN INSPIRATION

"Nature is the art of God,
Come forth into the light of things;
Let Nature be your teacher."

When we behold the wonders of this Universe, its perfection, its indescribable beauties, we are inspired by the work of the infinite designer and creator. From the mountain peaks to the rolling waves of the sea, we find nature's handiwork, beautiful in form and color, which should inspire the work of our own hands. Every life is in need of a power exercising an elevating and stimulating influence upon the intellect or the emotions. The inspirations that come to us through the various avenues of life lift us to a higher plane of living and thinking.

Design is the result of creative thought and feeling and needs inspiration in order to be awakened to new interpretations in its various forms of expression.

The consciousness of beauty in our environment is an inspiration which brings satisfaction and pleasure into our lives. Beauty fills a

need of the soul, influences our minds, and is reflected in our lives by our thoughts and actions. In nature we find the perfection of the beautiful free for our use and pleasure. No matter where we live, north or south, east or west, we share in the beauty of this great Universe. Each locality has a particular type of beauty. Seize the opportunity to use the material on hand. Learn to see and appreciate the beauties in your own surroundings. Base your problems in design on this material and you will have interesting results distinctly characteristic and individual. In the selection and analysis of Nature's wealth of material in one's own environment for decorative purposes, we may consider its beauties in various groups.

In Oregon, our mountain ranges from an interesting sky line in which Majestic Mt. Hood stands aloft as a center of interest, its hoary head a symbol of eternity. Covering the mountains with a mantle of soft green, we have the masses of pine, fir, cedar, spruce, and other evergreen trees whose cathedral-like pinacles tower into the sky.

Guarded by mountains and trees, we find many lakes of that exquisite blue in color, like beautiful gems in harmonious settings. On the levels, we find numberless streams and rivers among which the scenic Columbia offers a great amount of suggestive material. From various heights, dashing into these rivers and streams, are the most charming water falls.

From the depths, we are equally rewarded with beauty of form and color in the vegetable and animal life of the sea.

The vegetation of the country offers an unlimited amount of material in most unusual and interesting variety.

In this vast region of mountain, forest and sea, are homes of countless numbers of animals, birds, and fish all of which offer splendid contributions for decorative purposes.

The historic interests may also be considered—the early people and their mode of living.

The resources and industries offer a wide range of subjects that should not fail to interest and inspire every child, and it is for these various industries that practical application may be made of design problems. The logging and lumber industry takes us back to our wonderful trees and mountains. The Portland harbor with its massive bridges, its boats, and river craft of all kinds, its mills and ship yards, all have a contribution to make to this great fund.

The story of the life of a Columbia river salmon is a most interesting one from its very beginning to the time the packed goods are ready for the market at the canneries.

The Hood river apple industry is world famous, and we may find abundant material in the various stages of development from the time the fragrant blossoms cover the trees until the fruit is packed, ready for shipment at the warehouses.

THE TRANSFORMATION

Nature, therefore, is the original designer and creator of beauty, the expression of which forms the basis of inspiration which furnishes an abundance of material for the artist's selection and interpretation.

Beauty created by the artist is man's expression and the result of nature's prompting. An artist is one who fits some beautiful conception into some beautiful form of expression; one who not only takes beauty into his own soul, but has the gift of art to communicate it to another by giving it expression.

Man's expression, or the decorative interpretation of nature's truths, exists chiefly for the purpose of adding interest to the work of his hands in the making of articles of use and personal adornment, and also to give pleasure and enjoyment, satisfying the esthetic sense. These decorative interpretations or man's idea of nature forms, usually termed motifs, will vary in their form of expression according to their degree of removal from the naturalistic form, and may be shown in line, in mass and in color.

The organization of these motifs into designs offers an unlimited number of interesting problems, which may be adopted to almost any condition we may meet. It offers opportunity to teach the fundamental principles of design, developing the appreciation for the best, which comes only after the effort to create has been made, and results in the joy of creating or of expressing in a measure one's ideals.

THE ADAPTION

In our consideration of beauty, we realize its great need and influence upon our lives.

In our modern mode of living, we demand the use of various kinds of articles. There is not an individual today but what is surrounded with articles of use for the necessities and comforts of life, which require some form of design in their construction. It is in the uniting of beauty with the useful that we strike the keynote of Art for the Masses.

We may show our character by the way we live and in our choice and selection of goods. Character is the "soul" of the product. Judgments and selections not only show our own characters, but have an influence on others.

Since our environment not only has an influence upon our own character and dispositions, but influences others, it is our duty to link beauty with our every move, in order to master the situation and raise the standard of excellence of these things which stand for a period of time.

The possibilities of this subject for material for school problems seems endless. Adaptation may be made in various ways to the work of the industrial and commercial design classes. Textile designs, including repeating patterns for surface and border rhythms, may be

created for wall hangings, curtains, bags covers, etc., and may be carried out in the various crafts. Decorative units for rugs, blankets, mats, problems in metal work, block printing, batik, etc., may be presented.

In the designing for commercial needs, we may consider problems such as labels of all kinds, seals, trade-marks, letter heads and advertising material, all of which need some stamp of distinctiveness.

In conclusion, let each one of us view the field that lies before us. Let us rise to our opportunities, broaden our horizon by inspirations of the beautiful and aim to gain more of the esthetic sense which brings to us enjoyment and develops the power of appreciation. The realization of this ideal should eventually manifest its influence by setting higher standards of taste throughout the country.

Editors' Note—Miss Wurst used some very beautiful and interesting Stereoptican slides of Scenes in Oregon, to illustrate her discourse.

ART AND LABOR

GERRIT A. BENEKER

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As teachers of Art, both of the fine arts collectively, and of art as applied to the manufactured article, do we realize the true significance of art in helping humanity to appreciate the beautiful? In our teaching, have we not concentrated our efforts upon filling the minds of our young pupils with as many interests as possible, without giving them time and without teaching them to think of the deeper significance underlying anyone of these particular interests, and the underlying basic principles of art itself? I am afraid that we have been too intent upon cramming the minds of our pupils and the minds of the masses as well, with particular facts instead of stimulating in their minds a curiosity to want to know about the principles back of these facts.

It is but natural then, when art is mentioned, that our minds turn to paintings, sculpture, music, drama, poetry and good literature. But in order that we may consider art in its broader meaning, let us turn to the definition of art as found in Webster's dictionary—where we find that Art is "The employment of means to the accomplishment of some end; the skillful adaptation and application to some purpose or use of knowledge or power acquired from nature; and as to the fine arts collectively—the power of perceiving and transcribing the beautiful or

easthetical in nature as in painting or sculpture; and carrying it still further to applied art—practical skill, dexterity, knack, cunning." It is not my intention to endeavor to improve upon this definition, but that we may pause a moment to consider—let us more fully understand that we are to go to nature to acquire knowledge or power which we are to skillfully adapt and apply to some purpose or use, to employ these means to the accomplishment of some end.

Therefore the question arises—To what end? For we may all be artists, no matter what our particular jobs may be, for art refers to management, whether it is the management of paint, clay, sounds, words or actions, or the management of life itself, national, political, economic, social, religious or industrial. And the end—it is to either build or tear down—which shall it be?

Now, the artist—no matter what his job may be—but as an example, let us take the painter—if he be an altruist, by the very nature of his profession, he is constantly occupied in thinking and studying right relations, just values, and beautiful proportions, until this becomes his second nature—his employment of means to the accomplishment of his canvas. And because he habitually looks upon his own work in this way, it might naturally follow that he might also look out upon all life in the same way, as a matter of just values and right relations.

The painter, if he be an altruist, after first carefully selecting his subject matter, proceeds to forget all about it as such when he applies paint to canvas, and concerns himself only with the placing of colors next to each other in their right values and just relations to each other, as he sees them in nature. The mass of the green of the hills in relation to the peculiar quality of blue of the ocean, both these color-values together in their relation to the color-values in the sky. Of if the subject matter be an individual, he concerns himself with the color-value of the whole area of the face in relation to those color-values of hair, background, and garment. Such details as eyes and lips, he considers merely as spots of certain qualities and values of blue, gray, or pink, in their proper relation to the color of the flesh. Of course, in order to consider his subject in such a way, his knowledge of drawing, composition, line and form, should be so far advanced that it becomes as the tool in his hands, his second nature, his "Employment of means to the accomplishment of some end." But the degree of art manifested in the finished picture, regardless of all the knowledge acquired by the artist, depends altogether upon the degree of sympathy with which the artist may be able to submit himself to what exists before him in nature; upon the spirit with which he may enter into the spirit of the landscape or individual to be painted.

If the artist can enter into this spirit, completely submitting himself, the result on his canvas will bear the evidence of his personality

and a technique all his own, and this spirit, this emotion, this attitude of mind which was in the artist will be automatically conveyed to those of his audience who have eyes to see and ears to hear.

Too many of our artists today are interested only in some new superficial technique in paint, words, sounds or actions, and this becoming second nature, becomes also affectation.

Imagine, then, the spirit of Beethoven, who, altho stone deaf, pulling together the sounds from a hundred different instruments into one grand, thrilling whole, his 9th symphony! He could not hear even the thunderous applause of his audience, and yet he knew in his heart how that symphony sounded. The emotions which filled his own great soul were transmitted thru sounds from these instruments into the souls of the people in his audience. He felt it. They felt it.

No matter how noble in thought or sentiment, no matter how fine may be the quality of language or diction or voice of the actor, his lines remain as mere words unless he can throw himself into the spirit of the character he portrays.

Shakespeare is the master, because in his imagination he entered into the lives of the people he characterized. He was Shylock, Portia, Caesar, Brutus, Marvalio, Othello and Caliban, and did he not make Hamlet to say, "The play is the thing!" for thru a play within the play, Hamlet was able to wring a confession from his uncle that the latter had murdered Hamlet's father. j

Art then is not any particular thing, but a way, a principle which we employ toward the reaching of some ideal.

"If then," as Troward says in his "Dore Lectures", "Our thought is habitually concentrated upon principles rather than on particular things, realizing that principles are nothing else than the Divine Mind in operation, we shall find that they (these principles) will necessarily germinate to produce their own expression in corresponding facts; thus verifying the words of the Great Teacher, 'Seek ye first the Kingdom of God and His righteousness and all these things will be added unto you.'"

For the past eighteen years, I find I have been chasing an ideal, a sort of butterfly called Art, flitting here and there before me, just out of reach. Sometimes I nearly caught it; on rare occasions I did catch it, but could not hold it long or it would die, so I must need let it go again. But in this pursuit of the ideal—the End—I have recently come to see what these principles were upon which I was to concentrate. I have arrived at certain conclusions, certain beliefs, which after all seem to be a form of religion, for religion is belief—faith. [They are simply stated—that the greatest artist is God, who created all things beautiful, mountain, valley, forest, ocean; all these He created for man, but His greatest masterpiece is man: "male and female created

He them after His own image," a fact which most of us fail to realize, that we are part of God, that God is within us and we are in Him.

"How poor, how rich,
How abject, how august,
How complicate, how wonderful is Man!
How passing wonder He who made him such!"
(Author unknown.)

It therefore behooves us, artists, to go to nature as expressed in the simplest form of humanity for our source of inspiration. Through our skill adapt and apply the knowledge and power acquired from this source of inspiration to some purpose or use.

To what purpose?

I further believe that the greatest kind of art is the art of living. It matters not how rich, how poor, how abject, how august, it is not so much what we do, as it is how we do it—not living, but how we live!

Further, I believe that the greatest teacher of this "art of living" who ever lived in the flesh as a man like you and me, was and is Jesus Christ, and to my mind one of the most significant things that Christ ever said is recorded by John, the 10th chapter, in the 10th verse: "The thief cometh not but for to steal, to kill, and to destroy, but I am come that they might have life and that they might have it more abundantly." And what should be of particular interest to us artists and teachers of art at this time—Matthew 13:15: "For this people's heart is waxed gross, and their ears are dull of hearing, and their eyes they have closed; lest at any time they should see with their eyes, and hear with their ears, and should understand with their heart, and should be converted and I should heal them." Is it not, therefore, up to us artists and teachers of Art to visualize for the people? To help them to see, hear, and, therefore, understand life? Especially when we stop to consider that seventy per cent of our education comes thru the eyes.

Whether we accept Him or reject Him as the "Great Teacher," we may be led to these same conclusions about Art and Life, thru a close study of nature. We have but to go out into the woods and see what is there—to look up at that mighty oak and realize that it came from a tiny acorn, which happened to fall on good ground. Seeing, we understand that in its growth it was assailed by pests, disease, storm—for over yonder is a gnarly old oak with but one green branch at the top; many of its limbs have been shorn off by lightning and wind, and beyond that oak is the prostrate trunk of a fallen monarch, returned to earth from whence it came. But the spirit of that oak from the time it existed as an acorn to the time it ceased to exist, was growth. And, during its growth, it dropped more acorns to the ground. Hence the forest.

We humans came from seeds so tiny that they are not visible to the human eye, except thru a microscope. These seeds started to grow, let us hope, thru God-sent love. Many such seeds started to grow through some vile passion conceived in crime, disease, often in hate, fear, and deceit. But from the moment the tiny life announces with a cry its entrance into the world, great care is exercised in feeding it with the proper food, protecting its tiny body with warm clothes, that the child may grow up to become a fine healthy specimen of manhood or womanhood, and thus we start to grow up physically like the oak. Soon the mind begins to develop and we send the child to school that it may acquire knowledge with which it may sustain life. Directing the attitude of the mind and consequently the action of the body, because we act accordingly as we think, is a great unseen force known as Spirit, or soul. We feed our babies with food, we food our minds with facts, but the spirit is fed upon those things which in their production depend altogether and absolutely on spirit, and what depends on spirit more than Art? Accordingly as there is good and bad spirit, there is good and bad Art. Good spirit is fed upon those things which God created; bad spirit is fed upon those things which man devised when he failed to go to nature as God created it for his source of inspiration. Our landscape painters have succeeded to a greater degree than our figure or portrait painters, because they went to nature as the Almighty created it in its natural form. But because the portrait painter must needs make a living, he sustains his own life from those people of wealth who can afford to have their portrait painted, and how generally these people are camouflaged behind the superficiality of powder and paint, hair-dressed hair, jewels, silks, and satins, far removed from the image of what the Almighty created. If we artists are to seek the God in man, we must go to the masses of simple, elemental working people for our source of inspiration, as did Millet, Rodin, and Munier. This is the kind of art which the people will understand, thru its subject matter. The kind of art which is rejected by my contemporaries who sit to judge on our juries, but which has been proved to my satisfaction as highly acceptable by the people. My fellow painters insist that art should never preach. They fail to realize that every picture painted preaches, advertises, leads people in thought either positively or negatively, accordingly as sprang its source of inspiration. William Jennings Bryan admits that four pictures had greatly influenced his life. He had been converted to woman suffrage by Rodenhausen's "Madonna," to temperance by Hovenden's "Breaking Home Ties," and to pacifism by the "Apotheosis of War," and Munkacsy's "Christ before Pilate." (Literary Digest, 2-24-1917.)

Napoleon was forced to forbid the playing of the Rane des Vaches because Swiss soldiers who heard it deserted. The air was meant to be a lively and a pleasurable stimulus; but its hearers dilated with wrong emotions and became pacifists on the spot. It was homesick-

ness, not the incompatibility of war and music which disturbed them.

Rodin, brooding over the darkest hour and minimizing no peril or calamity, spoke with heroic assurance of the future: "Our young soldiers and our old cathedrals fall that there may flourish again a youth, pure, ardent, healthy, hostile to materialism, keen for spirituality, and that a renewed and sublime art may spring from the soil washed and fertilized by blood." And yet Joseph Pennell and many other contemporaries are daily insisting that no new or better art will result from the war. But this is only another example of how generally the people's heart has waxed gross—negative thinking. To cite a few incidents of negative thinking, note how Germany has combated Bolshevism by plastering itself with poster representing huge ape-like figures, furry-clad, bulging-eyed monsters with dripping daggers. But these only inspire fear in the hearts of the people and give courage to the Bolsheviks. And, pray, why should people fear?

The sculptor who created the Lusitania medal has also produced another medal showing the prostrate figure of Germany, with "Uncle Sam" tying its feet, while "John Bull" goes through its pockets, and on the reverse side of this medal are many uplifted hands under the caption, "A nation of 70 millions suffers but shall not die." This medal will go into the pockets of every German citizen to be handed down to his children and to his children's children, perpetuating self-pity and hatred. Negative thinking.

And in our own country, what did the working man and boy of the street say about those Liberty Loan posters of pretty girls waving flags? I have plenty of proof that these posters advertised the lowest in woman, and appealed to the lowest in man. And this statement was also made by Walter Hampton, the actor. He stepped before the curtain at the opera house in Cleveland one Saturday morning last December, when he played a living Hamlet to a packet house, and told the audience why he could not play Hamlet in the evening when it was customary for people to go to the theatre—because the theatre is controlled by a moneyed trust which puts on such plays as the public want. The play upon which the curtain rose one hour later was "Flo-Flo," advertised as "Lingerie and laughter."

Character is formed not so much by environment as by being influenced by things which are the result of either positive or negative thinking, and we are led in thought, and public opinion is formed chiefly thru our eyes, and next thru our ears.

The character of a nation, of a home, or of any industrial organization depends absolutely upon the character of the people in that nation, home, or industrial organization, and for the past generation we have grown nationally, individually, and industrially altogether physically; we have grown so fast and become so materially minded

that we have lost sight of those ideals for which our ancestors came to these shores of freedom and liberty.

From the little steel mill of Civil War days, we have built up an industry inconceivable in size in order to meet the production which the world demands. To do this, we have attracted to America millions of people from every corner of the world to do the work which must be done if we are all to enjoy life more abundantly. Does it not remind us that centuries ago men assembled from all then known parts of the world to build a tower up to heaven, and because they built materially only, they were thrown into confusion and each man was made to speak a different language?—and Babel fell. This same misunderstanding exists throughout the nation today.

But what has happened? Scientific agriculture has surpassed the plantation, and the plantation melodies which made work easier then are not adaptable to modern methods; nor are the paintings of Millet. Siegfried's song to the Forging of the Sword, and the Fire music to Walkure are drowned in the din of our steel mills and automobile factories. The spinning song of our grandmothers is surpassed by the humming of millions of spindles in our vast cotton and woolen mills. Stokers in a liner's hold do not respond to the barcarole of the Italian gondolier, and the chanty song of sailing days does not lift the anchor of an ocean liner.

Industry thirty or forty years ago was represented by the little mill on the stream, with the owner of the mill living perhaps across the street from the factory, or up on the hill, with his workman living close around him. When I was a boy, I knew such a man; he knew every man who worked for him, called him by name, even knew the names of his children, and this owner never had any labor troubles. If there were misunderstandings, his men were free to come to him, or he to them, and talk things over. Why, when this dear old gentleman's grandson was born, the workmen blew the whistle on the factory! He had contact with his men.

And then, as our own natural growth increases, and millions of immigrants came to enlarge the population, and the world at large began calling for American made goods, it became necessary to build larger factories, new and more modern machinery to meet this remand for increased production. In order to do this, it became necessary to invite people to invest their money in the capital stock of such new and greater organizations. Ownership passed from the individual owner to the many, and in the position of the old mill owner and representing the many new owners, was placed the production manager, whose duty it became to see that stockholders received their dividends, and justly so, but in the eager desire to pay greater dividends and hence make it more inviting for people to invest their money to further enlarge the business, management squeezed labor. Management spent countless

millions on machinery, forgetting that all this wonderful chain of mechanism was absolutely useless if the human machine broke down. Labor became a part of the machinery, but the worst thing that happened was the broken contract between the owners and the workers. When misunderstandings arose, men could no longer go to their employer and talk things over. It became just a matter of money getting, profit taking first on the part of capital, and following this example, there was nothing left for labor to do but to go and do likewise.

If man cannot express himself thru his work, which is the natural way, he is going to express himself in some other way. If his home is just a place to eat and sleep, often tumbling into bed, clothes and all on, after 10 to 14 hours of hard work, he cannot express himself there. As a citizen he can vote, but who will listen to him? He is only a greasy-faced workman in overalls (but we are listening to him now) so he cannot express himself nationally. If he can talk, every fellow workman in overalls will listen: he is of their kind. About 75 per cent of his talk is exaggerated, because he doesn't know accurately the facts, but about 25 per cent of his talk is fundamental and right. He does know right and wrong, but because he does not know how to bring about better conditions thru constructive thinking and doing, he therefore goes about it thru negative thinking or tearing down. And can we blame him?

That workman of a generation ago who made one whole complete article himself, took a lot of pride in his work. He expressed himself in his work. Today, he is forced to turn out so many similar parts of an article, not even knowing where these parts fit in the scheme of the finished product, and he becomes interested only in how many parts he can turn out in a day; the more parts, the more pay. Thus does Capital and Labor become materially minded.

When the nations of this tired world become so materially minded that they must need go to war to settle the score, resulting in long years of destruction, we immediately summon those spiritual forces to help stabilize matters. Like the tired business man who goes back to nature to recover his health, and as the painter goes to nature for his inspiration, so we turn again to humanity for the study of human nature.

Art in Industry? We know its power in producing and selling the manufactured article, but why not apply it to the human element in Industry? Not only to labor, but to capital as well, and above all, to Management of the two?

For the first time in the history of Art, and for the first time in the history of American industry as well, an artist's studio stands beside the tall factory chimney, to help re-establish that broken contact. Idealism and materialism side by side. That thru pictures of

men and their jobs, we may "sell" the best in one man to his fellow men, "sell" men to their jobs, "sell" labor to capital, "sell" capital to labor, "sell" management to both.

Art is a universal language. The right kind of a picture, song, symphony, drama, poem, or story, may thrill a nation speaking a hundred different tongues. It is a common meeting ground. If we can sell Victory Bonds on a poster, can we not sell all the justice, honor, honesty, pride, self-respect and squareness in the ideal man to his fellow men? Whether brawn or brain, or both, is our capital, can we not help men and women thru art to go on working, loving, laughing, singing, living, with all their hearts and souls? Can we not help men to look upon each other as human pulsating beings, with the same emotions, same love of home, and country? That men and women may face each other, even as Tristan faced Isolde, mute, with all the pent up emotions of pure, true, God-given love, the love that passeth understanding. This is the true purpose of Art. And this purpose is well expressed remains with us thru her Art—Ella Wheeler Wilcox:

"God, what a world!

When men of street and mart

Feel that same kinship of the human heart

Which makes them in the face of fire and flood,

Rise to the meaning of true Brotherhood."

Art, then, may be applied to the management of industry as well as to the management of paint. And in this case, the artist "cits in" on the management of a steel company at the head of which are a group of young men, all under 42 years of age, who are artists in the conduct of their business. We realize that the success of every phase of our industrial organization depends altogether upon the relationship between labor and capital, thru management. This is often called "welfare" work, but men do not want charity, in its accepted sense. Men do not want things handed down to them; it kills self-respect. But men do want the opportunity to do things for themselves, with the aid of management, and to this end we have our "Industrial Relations" committees, functionizing equally with production, sales, and finance. Under this plan, we have:

1. **Workingmen's Representation:** Every 30 men employed, by trades, elect semi-annually one of their number as their representative. These representatives meet once a month, and their chairman has direct contact with management. So that any man, no matter what his job may be, may express his feelings, his ideas on any subject affecting him or the Company, to management, holding certain ideas which they wish to reach the men down the line can take their thoughts to the men, asking them always: "What do you think about it?"

The most radical thinker in the plant, sitting in this industrial congress, soon becomes a rational thinker, for his fellow men point out to him where he is wrong.

2. The Mutual Benefit Association is far more than an insurance plan. Any workman who is an American citizen or who has declared his intentions of becoming one, and who has been in the employ of the company for one month, is eligible for membership. Each member pays one dollar a month, or twelve dollars a year, the company putting up an equal amount. For his twelve dollars a year, the employee carries an insurance policy for \$1,000, with \$100 added for every year of service up to 20 years, plus \$100 added for every child up to ten children, a maximum of \$4,000. It also takes care of sick and accident benefits and old age pensions. Its management being 50% workmen and 50% from general management may vote any amount of money to help its employees in time of need. The Mutual Benefit Association also runs the Restaurant, Groceries and Meat Shops in the four separate factories of the Company. If the employees want a dance, they hold it in the large Auditorium.
3. There is a general medical supervisor with a doctor and nurses in each plant.
4. And as to stock in the organization, the directors have approved and authorized a statement, (1) of a belief, (2) of a policy, and (3) of a definite plan.

The Belief is as follows: It is our belief that the service of this Company to its Stockholders, its Employees, its Customers, and to the Community can best be maintained and increased by the Ownership of the Company becoming vested largely in the men who are actively engaged in its operation."

The Company will assist any employee in the purchase of stock.

5. In order that management may talk to all the employees and to all the stockholders at one time, a magazine is issued which is edited by an employee who a few years ago was a grease-wiper. Each plant has its Editor and staff of reporters. In this magazine are fully discussed such matters as are of interest to all. To make this magazine something which will help to make every man want it, the covers each month bear a full color reproduction of an oil painting of some workman or of his job. On the inside front cover of this magazine and under the same title given to the picture on the outside front cover, the artist writes an editorial in which he talks to all the readers of the magazine thru the man on the operation he has painted.

And what does the artist discover when he paints a man? Does he not discover the God in that man? That Divine spark is very dim in some of us, more dim, I am afraid, in those of us who represent capital and management than in those who represent labor.

But let Dave tell it.

A group of foreigners—common laborers all—stood behind me, watching me as I painted in the Steel Mill. It was their job; why shouldn't they be interested in watching its likeness grow on the canvas? Over at the end of this group stood Dave, a Croatian, or Slovac, foreman of the Gas Producer, his rather sullen face blackened with coal dust.

"Do you know who is the smartest man in the world?" he remarked to these men as I continued to paint, "That artist over there."

I looked up, wondering what Dave was going to "put over" on me.

"That artist is painting God without seeing Him," he remarked. I doubt if the others understood.

"Dave," I exclaimed, "When did you get that?"

"Oh," he replied, "I knowed dat in de old country long before I come over here," and he continued, "Man can make anyt'ing, but he can't make a man; God makes men."

Oh, for more men with hearts like Daves! Do you not believe then that the Creator has commissioned us artists and teachers of Art to go into industry and visualize for his people what He has created there?

It becomes necessary now to tell you a little something about how this work has developed. It is not easy to be a pioneer. It is not easy to sell your ideas. But imagine what a happy surprise it was to find a group of young men at the head of an industry who could see this idea! We may accomplish all these reforms, these things we are trying out, twenty-five years from now. If a young fellow comes to ask, "How did this happen? When was this idea born?" I am sure the reply will be, "It was the war, because the war has brought out all these things."

You can read it in the magazines if you want to know how it came about, but let me say, when we went into the war, I felt, like any other American citizen would naturally feel, "What can I do to help?" and as some years previous I spent years of illustrating in New York, and industry has always been my special field, but I had turned aside from it to go and study painting, I felt my opportunity, that I could best serve by appealing to men in bills to help take the fighting men across the water. Of course, pictorial publicity was a stumbling block; a political appointment was necessary, which worked out all right, but which blocked a lot of us fellows who couldn't work on that basis.

However, I got to Washington after a lot of red tape, because some one could see the idea.

In the construction of the new War and Navy buildings in Washington, there was a new concrete building just under construction, just starting. This job has to be done in six months, all complete. They were employing some 3,500 men on the job, and losing between 400 and 500 men every week, turn-over. That is the class I wanted to appeal to. The officer in charge could see my point, and he gave me a studio right on the job.

They were employing about 1,500 colored men pushing concrete, men just come up from the South, and I venture to say they never worked as hard as they did on that job. They were the kind chiefly who were quitting, although there were many other kinds too. I went out and selected the biggest darky I could find, as well as the most picturesque. He had on a green shirt, blue overalls, and bright new yellow shoes, and you can bet he didn't come up to Washington with those shoes on. I brought him into the studio and got him on the model stand. He hadn't been on the stand more than fifteen minutes before he sensed this thing right away. "Say, boss, can I get one of these when they come out?" And when it came out, every man on the job got one. An appropriate title at the top impressed that man that he was serving America the same as the boys in France.

I painted one poster of a workman with his hands to his side, and his head back, and the title was, "My country! To thee I pledge my hands, my heart, my soul," and the contract manager of the firm who was pouring the concrete came in and looked at it, and he says, "Hell, a workman has no heart and soul. Take off the last two lines and I will print it," but I wouldn't take them off, so it was never reproduced, but I still believe that some day before long that poster will still go over this country. And then I wondered why I couldn't get into industry, and I thought the Department of Labor was the place to go. But they informed me there they could not reproduce my work because the man's shirt was torn. Now, stop and think what that means. Why, what has that got to do with it? Well, organized labor takes pride in his clothes. There is the answer. The Department of Labor was catering only to organized labor, forgetting all about some 30 millions unorganized, and I knew right away if I was going to be told what to paint and how to paint it; I could not work for the Department of Labor.

(Stereoptican slides followed.)

TASTE IN DESIGN

PROFESSOR GRACE A. CORNELL,

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NEW YORK CITY

The word "taste" is defined in the dictionaries as a sense by which we perceive the quality of anything, and a personal taste is defined as a nice perception of excellence. Mrs. Fulton in one of her delightful books, defines taste as the atmosphere in which taste lives.

We realize that the desire for design began thousands of years ago. It existed as far back as man inhabited caves, and it exists so universally today that it can be said that our desire for design is instinctive. Vast sacrifices of time and labor and money are made today for designs both good and bad. Can it be said, judging from the quality of these designs, that the faculty called taste is instinctive and universal among us? Many beautiful things are offered for sale and are purchased in our shops, but consider the multitude of ugly things.

Why do we endure magazine covers that are insults to our intelligence. Who is to blame? The buyer blames the manufacturers; the manufacturers blame the designer, and the designer blames the public, and if we had a real mean public, I suppose they might say "We blame the teachers."

The sales people say, "Yes, we must sell what the buyers buy," and the buyers have troubles of their own. They say, "We must buy merchandise for many other things besides those of design and color. We are hampered in our buying by such things as the limited sources of supply. The manufacturers must make what we sell," and so I agree most heartily with what Mr Bailey says, that the manufacturer should go to school.

It is simply appalling the lack of knowledge on the part of many of our manufacturers about these questions of design and color. Then buyers and sales people who are in a position to know tell me that manufacturers do not always know what the public really wants. I believe that the manufacturers are human and that they make mistakes like the rest of us. I can cite a number of mistakes, very amusing mistakes.

A short time ago, the head of one of the largest department stores in the country, asked me if I would go through his shop with him and without fear of hurting his feelings say just what I thought about some of his merchandise. I will tell you of one or two instances. I remember especially some horrible couch covers. I said, "Do you mean to say that anybody really wants these?"

He said, "Mis Cornell, they are made to sell to the Americanized Italians. They buy them and think they are perfectly good U. S. A."

We came to some rugs, a hideous set of rugs, streaked red and yellow. I said, "Who are these made for?" "The South Americans" was the reply.

I could go on and tell you mistake after mistake which are constantly being made.

Then we come to our public. Very many times they simply do not understand. Many of them do not even see. Isn't it true that much of this design is due to the lack of knowledge and appreciation on the part of the great mass of our people as to what constitutes taste in design? If an atmosphere of taste is ever created in this country, I do not think it will come about as a result of the work of a single group of art up-lifters. I believe it will come about through the co-ordination of all the groups.

The Metropolitan Museum of Art realized this long ago; that great museum, with its many and varied activities, holds its place firmly in our social order. It has been my privilege in the past four years to assist in creating a relationship between the Museum and the modern business world.

The Museum through its study hours for practical workers is attracting a lot of interest of rapidly growing groups of people who design, make, buy and sell merchandise which has the quality of design and color. These groups began about four years ago. I asked the secretary of the Museum if he would let me work with them and interest them, with the object that perhaps they would tell their friends, and the work would grow in that way. The secretary, being a broad-minded, and sympathetic man, was willing to put the support of the Museum behind an object which had as small a beginning as that.

Our groups now are numbered in the hundreds and more than forty firms are represented.

We organized a special course for the R. H. Lacey Company. We have forty men and women, the heads of the firm, the head of the advertising department and various other departments, covering all the things you can think of in a department store. These men and women are high salaried employes and the firm would not be willing to have them spend their time in an art museum for eight Friday mornings of a busy season unless they found the work of practical value. We were delighted at the end of the course to have the business world assure us that the work had practical value and asked us to repeat it immediately for their assistant buyers and sales people. As a result the firm of Lord and Taylor requested us to plan a special course for them.

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Editor's Note: Here followed the display of various samples of design in textiles, and stereoptican slides.

INDUSTRY AND THE CREATIVE IN EDUCATION

LILLIAN CUSHMAN BROWN
UNIVERSITY OF CHICAGO

We are meeting together at this Conference in compliance with our president's request to exert our influence towards an artistic America. Social and technical phases of the art-and-industry problem are to be discussed. I have chosen for my contribution a subject which has been professional interest of my life.

* * * * *

It goes without saying that the history of education within recent years has been a reflection of industrial conditions. Twenty years ago, Col. Parker and Dr. Dewey were considered radicals in their use of industrial processes as media in which to function knowledge. Before they had made themselves understood, the country was swept by the vocational wave. (The menace of the German system has probably vanished since we have seen their fighting machine overcome by those who have the ideal of democracy.) There is however, a tendency to overlook the value of processes and to stress certain types of efficiency and results. The social standards imposed by industry are creeping into the schools.

Modern industry suggests to me the Alexander mural decorations in Carnegie Institute. The unknown earth forces, to the Greek imagination, became Titans ever warring with the natural order. In this composition, the towering derricks making intricate pattern against the sky, columns of smoke lurid in the glare of molten metal, youthful Vulcans, heroic figures of Labor, one feels the composite mind of modern genius engendering a power which is mastering the world. Within the last four years its real achievements have been more dramatic than any artist's conception, they have thrilled and terrified. I can hold within the hollow of my hand a bit of old craftsmanship and listen to the "still small voice," the spirit of the worker, while modern industry is a group consciousness which expresses the creative spirit of today's life. That spirit is like Emerson's "Over soul," something that floats just above the individual, constituting a standard to which he must strive to raise himself. On account of the complete separation of manufacture and design by which the worker is excluded from the creative process, he becomes a mere wage earner who lives only during his idle hours, hence many social and economic problems in modern life. In her recent book on "The Creative Impulse in Industry," Miss Marot sums up the industrial situation so well that I would recommend its note of one remark made in discussing the attitude of the managers perusal to any who have not already done so. I would make a special note of one remark made in discussing the attitude of the managers of

industry, to the effect that "they do not recognize that industrial ability depends largely upon the opportunity which the individual has to make adjustments to his surroundings, and his opportunity to master them thru experiment." This remark is suggestive of a line of criticism which might be directed not only to industry but to the educational system as well. "How did they do it?" is a question often heard in our exhibitions. From the finished product we cannot tell what the children learned in the doing. More and more do we seek reliable modes of testing ourselves, as to whether we do in reality contribute anything that will make amends to the worker for the mechanical routine of his future employment and whether the attitude of mind developed thru the creative process is one that we are trying to secure.

When a small boy fastens wheels onto a soap box and makes a wagon, his thinking has involved seeing the possibilities of the junk heap in carrying out a more or less definite purpose. In that it required the imaging of materials in a new situation, it represents the simplest type of creative process. It is design reduced to its lowest terms; in other words, a plan which takes shape in mind before it ever reaches the world of tangible things. The more complex the idea the longer it takes to make it concrete. In the case of the wagon it was a matter of assembling ready-made parts, while it took years to perfect the motor vehicle, but the process in one was the rudiment of the other.

I used to be a frequent guest in the home of a man who was eminent in lines of mechanical invention. The instinct for invention seemed to be a dominating impulse, while its nature was determined by external, social stimulations, as when the papers were filled with the details of a great water scandal, in which certain corporations were stealing water from the city, bringing out the fact that there was no meter which was constructed so as to insure immunity from falsification. Days followed in which he was deaf to things around him. He was thinking water meters. Then he would begin to play with a few crude materials, constructing a mere toy. As he handled this material, realizing more and more of his idea, there would follow a drawing and a more exact model. It was evident that the idea grew thru its production in material. Indeed, what started to be a single invention sometimes grew into an entire system when he realized that he had "revolutionized the art."

Reviewing his procedure, I note a three-linked chain, there is first a conscious need; second, technique, which is the means of securing the result, which constitutes the last.

The distinguishing feature of a creative process is the intermediate position of technique, knowledge or information. In the old academic practice, these were always first. We didn't study features because in our drawing of the head we felt the need of practice, but because our instructors told us that some day we might need the skill when we did draw a head. We didn't draw the Greek, because in our efforts to in-

interpret the beauty or decorative quality of the figure, we turned to the great masterpieces for inspiration; we draw it mechanically with unseeing eyes, in order to be ready to appreciate in some remote future. We didn't study the nude, sketching from innumerable positions, visualizing, memorizing, as an artist does when he has in mind a definite composition. We just sat, and drew, and wasted time.

When technique is not intermediate, there is no conscious problem. Because a man works day after day at a machine, and knows and cares nothing for the product of his labor, we speak of the deadening influence of the machine, an expression that tacitly recognizes the fact that when an activity is separated from the purpose in which the end is preconceived the will and imagination of the worker are not in the process. He is on the load being pulled. Creative effort means that he is behind the load pushing. If we wish to secure such a process in the school room, we should have to answer two questions: Does "Creative" imply that degree of originality that gives an inventor the right to a patent? Second, how are we to assure ourselves of growth in control and development of standards?

These questions can better be answered by observation of a primitive invention than a modern one. I have in mind two ladles made from the horn of mountain sheep by Indians of the Northwest coast. One is a rough piece of material left in its natural condition, except that the bowl slopes abruptly into a small, sharp handle, whose rough edges have been wrapped with sinew. The polished surface and carved ornament of the other rival the efforts of a modern craftsman. In the want column of this tribe was listed a receptacle for the fluids which they used in ceremonials. A decaying horn filled with a remnant of rain water might have been a sight familiar to hunters in that region, yet we may assume that it was the exceptional mind, the primitive Newton who said, "If this holds water, it will hold other liquids." Had he been starving, he would have made a different analysis, noting the food possibilities indicated by evidence of animal life, but needing a dish, he noted the holding capacity of the horn. Technique consisted in simply appropriating the raw material, but there had been a plan, a shaping of means to end, and a result. Probably generations of his neighbors used these receptacles without change until the exceptional mind again appeared and shaped the horn to fit the hand; another made it more comfortable by wrapping; a third added an ownership mark; a fourth discovered that the surface might be polished; others developed standards concerning the particular size and shape best adapted to purpose and effect until the final product meets the requirements of beauty as well as utility. While these various designers did not produce an entirely new article, each one contributed a new element and the mental process of each was like that of the first in that he did his own thinking, as shown by the change in his standards and the accompanying readjustments of construction, which would justify the conclusion that

"creative" does not necessarily mean the development of an entirely new thing. It does imply a definite plan in which old and new are readjusted to conditions by the introduction of new elements. It always implies some process of selection, an opportunity for individual choice.

One of the objections to organizing a technical course, as applied design, is that the design element may introduce such divergence as to destroy the coherence of the work, so I emphasize this point that to secure a creative process, it is not necessary that each student should work out a different kind of project. In a sewing course, there must be certain uniformity, but there should be an open problem in each lesson (selection of material, study of methods of stitching, proportion of structure, distribution of decorative parts, color of fabric). Whatever it may be, that particular problem should be subject to individual variation and experimentation as it is when attention is focused on the element that constitutes the variant that there is opportunity for the comparative criticism of results which enlarges experience and develops standards. A process which admits of experiments presupposes mistakes. They are sometimes the most valuable part of experience as they quicken attention by calling a sudden halt, compelling the wanderer to reread his road maps and sign boards.

We are not seeking or advocating costly mistakes. The earlier in life they occur, the less expensive they are. Moreover, when they occur in relation to the learning process, their application is assured.

When I ask students why they should be required to design in connection with the industrial arts, they suggest either a vocational aim or a training in taste. Rarely do they go back to the more fundamental point, the development of a creative attitude on the part of the worker. Note the contrast between the type of mind shown in the above examples and that of the nine hundred and ninety-nine who continued for generations to use the same old forms. Theirs are the minds that do not make deductions, whose owners are found among the day laborers of modern life, or among those who, having learned to do one thing well, are permanently out of a job if there is no longer a demand for their particular skill.

The purpose of my message is to say that I believe that education consists in developing the attitude of mind shown in the foregoing illustrations. It is the normal attitude of the human being who has a purpose in life and starts out to accomplish it. It is the attitude indicative of healthy, growing life, in distinction from the passivity which denotes arrested development.

Teachers reflect the methods of the normal schools; no matter what their slogan, they repeat in practice what has been done in their training classes. In a farm and home school for girls, where there was need of special adaptation of domestic science to real home conditions, it was next to impossible to find young teachers who could see the possibilities, and depart from the note book which they made in train-

ing. Yet the problem of making real bread instead of sample biscuit, and of organizing real life in the cottages rather than dealing with school laboratories, should be most stimulating.

In her recent book, "New Schools for Old," Miss Dewey introduces us to the creative teacher in the instance of Mrs. Harvey, who took the most run down country school, and from the resources of the small community made it an ideal rural school. It makes us realize that it is breadth of vision on the part of the individual teacher that determines the result.

I once visited a school in which it was the pride of the principal that the art supervisor never had any poor work. This was the lesson that I saw, "Children, you may fold your paper so,"—teacher folded, children folded. "Now, you may wet your blue paint,"—then followed a demonstration in which teacher painted a sky. Children copied exactly. 'So step by step, the process was dictated and carried out by the class. It was true there was not one failure in the room. I have never seen better attention to directions. The pictures were almost uniform in technical control, but the children did not know until it was a Christmas card. They had no idea as to what kind of a landscape would evolve. This presents an extreme practice based on the theory that the concrete result is the measure of efficiency. The type of mental discipline resembles that of the game, "Simon says 'Thumbs up' ". Back in our nursery days, we acquired alertness in that kind of mental gymnastics.

A number of arguments are offered in defense of this method. For one, it is said with some truth, that a child becomes discouraged by a poor piece of work, that the lesson should be so planned that he cannot fail, and that thru the successful result he gains a technical standard. You will note, however, that the child has not been privileged to think thru the process and so his mind has failed to function creatively. One might say of this method as did Miss Marot of the managers of industry, "They demand that those who serve them meet the requirements which they have fixed. They do not recognize that ability depends upon the opportunity which an individual has had to make adjustments to his surroundings and to master them thru experiment."

It is quite natural in this gathering to think of the industrial arts, and so let me say in passing that the creative process is just as necessary in subjects which do not deal primarily with concrete material. I have heard history and geography lessons conducted in such a way that students were doing creative thinking.

Last year, Miss Raymond brought home to us our tendency to borrow here, there and everywhere, so that our exhibitions contain parodies on Dow, Johonnet and Bachelder. We know this is true, but at once comes the rejoinder, "Are you going to deprive the children of the benefit of the fine examples of art?" I should answer, "By all means give them the best in art and industry. They should be steeped in

beauty." We must exert our utmost skill in bringing into the school all that the arts can offer in order to counteract the outside influences. If the educational process is creative, the student will have a purpose and will refer to the masterpiece in order to study a definite thing, just as he consults the dictionary or encyclopedia. He does not memorize pages of the dictionary, and it is just as absurd to have him blindly copy Dow landscapes, and yet let me contradict myself and say that I would give him material to copy when he needed, and know that he needed, a certain kind of technical skill that he could gain better by seeing how someone else did it, just as the young musician acquires technique thru imitation. All subjects in the curriculum have organized and established bodies of technique and material, and it becomes necessary for the student to think, and feel, and express himself in accordance with their established principles.

There was once an enthusiastic nature study teacher who required all the children in his school to paint a landscape every week for the purpose of keeping a weather record. He believed that the entire value of the work was the initiative which students put into the project, and the experience they got thru the direct contact with nature. Here was the "universal nature picture," and "all that was necessary was to go out and feel its inspiration and draw." He was violently opposed to any organization of the technical side of the process. From the first grade to the eighth, the children were required to devote half of their time to painting these weather records. A few elm trees grew near the school and the work revolved itself into an endless repetition of pictures where one or two of these trees broke a monotonous expanse of sky and ground, so that a generous supply of vivid green grass was the rival of black branches and trunks. The trouble in this case was that the type of initiative was that which prompts the sight seer to wander thru a museum. If he doesn't bring a definite fund of knowledge with him, he has no means of interpreting what he sees.

As before suggested, there are accepted conventions in art and industry, just as in written and oral speech. The freedom of response depends upon the skill in their use. To say that the work of children should be creative does not mean that necessary drill should be omitted, nor does it mean that it should be original in the sense of inventing new types of animals.

In the kindergarten, we sometimes find too sentimental a regard for the crude symbol just on the ground of its originality. Certain types of stimulation—narrative and pictographic records—have tended to retard art development, while decorative restrictions have developed aesthetic qualities. Creative effort should not be indiscriminate. We do not encourage the tendency to kick and scream; tho it may be a natural impulse. The work of children should be creative in the sense that it affords such incentive that they tend to project themselves into the problem; just as the motorist who has the

sense of direction looks over his maps and visualizes his route a long distance ahead, the method should be of such a nature that children advance in the power of imagining results in terms of the technical steps involved.

A cooking lesson might illustrate this point which I am sure is important. Assuming the initial stimulation, which might be social (preparing a meal), or scientific (studying the properties of gluten or albumen), there follows the cooking lesson. The correct method from this point of view would be to afford the opportunity for the class to plan and image the entire process before going to the tables. The opposite of this would be to give them directions to which they might constantly refer.

To give an illustration from my own subject—teachers let children fold a square piece of paper into four smaller squares from dictation, cutting from the four fold piece a shape, which, opened out, becomes a radiating unit. It is developed without any creative thought. If a free hand unit had first been made and the folding had been introduced so that they could make their pattern more uniform, the value of the project would be entirely changed because the folding, which is a sort of first step in mechanical drawing, would have been recognized as a technical aid to be used under other conditions. Technical processes take on value as the mind gains in the ability to define the problem.

I agree with Dean Russell in his belief that the industrial material used in education should have a worth-while content of experience and also with his statement that, "Drill for the sake of technical skill is one thing; motor expression for the sake of clarifying, strengthening and assimilating knowledge is another thing. To learn by doing," he says, "is well enough if there is no better way; to do without learning from it is to drop to the level of the brute, a travesty on pedagogical insight."

The reason we find reactionaries among the educational "high brows" is that landscapes, paper knives, tabourettes, shoe bags, and aprons, have been produced by methods just as formal and dead as those we are discarding from the so-called formal subjects, or which we decry as the evil of the factory system.

I recall an educational meeting at the University of Chicago at which there was a heated discussion as to whether material was to be regarded as application or stimulation. The conclusions advanced, however, bore radical results to the effect that as application, material should be postponed till a late period, preferably when children begin to drop out. It was urged that the previous work should be more definitely preparatory to this period of hand training. This would put us back again into the non-creative type of education, as it would be constantly making preparation for the future. It would probably exclude industrial work from the crowded program of those who are

madly rushing to prepare for college and would end by limiting it to those who are taking vocational training. Under this condition, it would take on a vocational rather than a cultural character. I went home and wrote down the speech that I wished I had made. I remember that the thesis contained three points: (1) Material stimulates but it does not necessarily initiate (note the case of the hunter and the horn in which the need of a receptacle furnished the first incentive); (2) Material does not determine the nature of the response (note the museum, but the type of experience which the visitor brings determines what he gets out of it; if a specialist, his ideas are well organized, and the "new" group itself around that which is familiar. The mere sight-seer, as the term implies, is the one who brings no organized ideas, and, therefore, gets merely unrelated sensory impressions); (3) Through its inherent qualities material does make certain kinds of stimulation possible. We have only to consider the variety of processes belonging to clay, textiles, printing, and their content of associated ideas to accept it as self-evident. If we follow the course of invention, we find that the concrete has served to test ideas and also to enlarge them as I tried to show in describing the method of my friend.

Count Tolsti is reported to have recently said that, "Only by constructive development, by education of the masses toward co-operation, can society be changed." How can co-operation be secured unless each human unit develops his inherent powers? Abilities are developed only in terms of what they do; therefore, this obligation extends to their functioning so completely that there is actual dependence between the individual and his social group. This result can be secured only when the organization of the entire curriculum is such that all its processes are creative. There have been many schemes of correlation, some of them very bad, as when art was treated as a language thru which certain subjects were expressed. The fallacy of a theory which denies to any subject its own coherent entity is shown when progress stops through lack of proper technique. The only sane theory of a unified curriculum must be one which treats it as a living organism in which eyes, ears, hands, have their highly differentiated functions, accompanied by equally perfect co-ordinations. Correlation cannot be secured by an external scheme of tying together; it is what happens in consciousness when each type of experience functions completely. We are told that mathematics resolves itself into measurement of value, quantity, time and space. As this science developed out of the needs of society and functions in social life, so it is in life that all forms of knowledge take on a meaning and inter-relationship. True correlation can take place within the school only when, though simplified and idealized, the conditions are those that obtain in the outside world.

Among many attempts to reorganize its school life, that of Gary is most conspicuous. There is no doubt but that their weak point has been imperfect management of the technique. If they are working in

the right direction, however, why be discouraged or a knocker because of imperfect results? Though it costs us millions of money and heroic lives in its experimental stage, we accept aviation and wait for it to be perfected. Why not accept the school of tomorrow and help build it?

What should we teachers of industrial arts do towards erecting the new edifice?

Do we agree with Dean Russell regarding the industrial activities of the elementary school period as applied design? Defined as "creative thought," design is broad enough to include all the processes adapted to a cultural period.

Historically, decorative art and industry have developed from one root. I ask you if it would not be more satisfactory if industrial art were taught as a unit by one teacher, a teacher who had been adequately trained for that purpose?

As we all believe, design is not extraneous, but inherent in the process of making. Eliminate it and there are left only the tools of the trade, and their manipulation. Under departmental separation of art, manual training, textiles, in the elementary period, there is duplication and lack of co-ordination; worse than everything else, a tradition is established in the student's mind that art and industry are separate entities. It is a fact that this departmental separation exists in certain schools which train teachers. To be quite frank, this type of organization is due, not to any educational principle, but because certain departmental heads worked better where there is autonomy. The lack of proper unification of these departments in normal schools has been detrimental to the work at large as the cleavage has naturally extended back to the school system.

I am aware that there are difficulties in this plan, that it might result in a teacher prepared in one subject presenting all of them, with one-sided results. I am assuming a teacher who is properly trained for this purpose so that no one branch of the subject would be sacrificed to the others.

This suggestion does not imply lessening the time on the program, or cutting down the number of teachers. It would give the teacher more periods with each class and fewer classes. This would afford closer contact with pupils, who, in turn, would in the presentation of the subjects from one point of view, gain rather than lose, even though technique were not so perfect. The more complete departmental organization falls naturally at the period when technical skill is of greatest value. This is at the time when the vocational takes the place of the cultural.

Last year the Association listened to business men and manufacturers, members of the Art Alliance of America, who told of the great need for well-trained American designers. You may remember that they urged that the commercial supremacy of our country depended upon our producing this skill, and that the present product of our art

school was criticised for lack of knowledge of the practical processes and materials for which they are to design. Am I not right in maintaining that the public school should send to the technical school a student so trained in habits of thinking that he will approach every new problem from the creative standpoint? Should he not also have had such experience with the typical forms of material that he is as well prepared to become a student in a school of applied design as to enter on a course in college science?

Miss Marot says that industry is the great field of adventure and growth. No one ventures to predict what new adjustments will grow out of the present upheavals. Arthur Brisbane remarks that "You don't change a proletarian with a forehead one inch high to an administrator by telling him that the world belongs to him." He adds, "You have got to increase the height of the forehead and the depth of the convolutions within, and that takes time," and concludes, "Although you cannot make proletarians into administrators overnight, you can at least organize your proletarians and teach them to use their united strength in such a way as to compel administrative ability to consider them, giving them their share of what they produce." He was speaking of Russia. Perhaps in this country the transformation will come more quickly and we will hope for larger results.

Perchance the machine tender will at last find expression in his work for those emotions which now evaporate in vicarious play; perchance he will develop the social consciousness which Tolstoi seeks; perchance the real toiler will become the ennobled being of the artists's canvas; perchance the lurid smoke above our great mills will rise, as in Alexander's pictures it seems to do, an incense bearing the offerings of the joyful soul-free workers. We may safely say that the result will ultimately depend upon the effectiveness of the schools in developing an education that is creative.

With a Federal Bureau and a Cabinet representative, let us hope that we may go about our study in a more thorough and scientific manner than ever before, with laboratory schools in different parts of the country where problems may be investigated from the standpoint of widely varying needs. Perhaps then we will have a growing realization that the attainment of our democratic ideal—an education that affords each individual his opportunity for development—lies not in the Gary system or any other system, but in the application of well-understood principles by teachers who have vision and the courage to use good old-fashioned common sense.

MANUAL TRAINING ROUND TABLE

*A. C. DUNCAN, CHAIRMAN

THE USE OF JIGS IN THE MANUAL TRAINING SCHOOL

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Since in a discussion it is best to define any terms about which there might be any ambiguity, the term jig may be defined as follows:

A jig is a device planned by the teacher at the expense of very much time and forethought, the purpose of which is to test the ingenuity and ability of the pupil to circumvent its obvious purpose.

Thus, if we take the experience of teachers and factories that have devised apparently "fool proof" jigs, we will find that for even the best of them occasionally some fellow can study out some way to get around its intended use.

If I may be pardoned for relating some of my personal experience, I would like to relate my initial acquaintance with the jig. It was during the war, about the time we all began to realize the value of mass production in the schools as well as in industry. Mr. Hurrell was doing some great work in our city establishing motor truck schools for the drafted men and was in the need of a large quantity of tool boxes. Mr. Wood, Director of Prevocational Work, promised the co-operation of the district manual training centers in getting this work out. Along with some of the other men, I was asked about what my boys could do. Since this was about a month before school was to be dismissed and anything might happen or not happen in a month, I gave my promise to take one half the number. Like we teachers sometimes find it diplomatic to do, I had given my promise, but did not feel very enthusiastic at the time, depending upon flogging up my enthusiasm later.

Time went on until it came the last week of school when we have only one-half day sessions so that we can get all reports and unfinished work finished. At Wednesday noon, I was feeling fine, no material had come for those boxes, and since we were always given Friday to prepare and put away all tools, I surely could not be expected to make any boxes that year. In the afternoon just as I was getting ready to leave, hearing a commotion up in the yard, I went out and there was a big army truck with some lumber and eight or ten men to unload it supposedly. However, the sergeant, upon finding that the lumber had to be carried down to the shop, lost about half an hour calling headquarters asking for a detail of a regiment or some such insigni-

*In the absence of R. A. Kissack, the elected chairman, President Wood appointed Mr. Duncan to conduct the meeting.

ificant number to help him unload it. When he had received the promise of reinforcements he told his men to take their time and do what they could in unloading. It was finally unloaded and about an hour after they had gone, the reinforcements arrived in two army trucks. As for me, I began to look around for sympathy. My Supervising Principal told me to call the office and tell them that it was too late to do the work. I was worried that night, and after getting what sympathy I could from home, decided to do what I could and let the remainder go. I had my campaign pretty well worked out by the time I reached school next morning, so that by the time my class came in I was able to hand to the better workmen plans with dimensions for devices to take care of the different operations.

It was purely an assembling problem as all pieces had been cut to size. The sides were to fit over the ends and the bottoms were to be nailed over all. Before this class left, all the jigs had been completed and the work had begun. Operation number one was marking the places in the sides for the nails. For this a flapper was fixed on a hinge with three protruding screws so that a side could be inserted and with one blow of the mallet the marks made. Second, the sides were passed onto one of two benches where boys started the nails in these holes. Third, the sides were again passed to one of four benches where boys had a contrivance which held two ends upright at exactly the correct distance with stops that held the sides in place while they were nailed. Fourth, on each of the four benches, the part then assembled was put in a device that held it in place while the remaining side was attached. Fifth, four boys fastened on the bottoms. Sixth, two boys inspected every box and sent back to its correct source any with mistakes, charging up the error to the workman who had made the mistake. Seventh, three boys stacked and counted. In addition, two boys looked after distribution of stock, and one boy was foreman.

By noon we had made four hundred boxes and had used up all of our stock. Before the boys who had worked in the first class went home for lunch, they besieged me asking for permission to come back and work in the afternoon. They were very much displeased when they found that the other class had finished the box.

The enthusiasm which I had been looking for had come and it has never left. If a teacher once gives this sort of work a trial, I believe the vim and enthusiasm with which the boys get into it will become so contagious that he will become converted. The laziest and what has seemingly been the boys of no account will often rise to the occasion and do surprising things.

All the work done in the manual training shop, of course, will not admit of the factory method, but some of the better are as follows:

School furniture, such as tables, book cases, book racks, bulletin boards, flag brackets, etc.

Shop equipment, bench hooks, sandpaper blocks, bench stops, print shop galleys for storage, etc.

Things of civic value, bird houses, fly traps, fly swatters, etc.

No work should be done in school shops purely for production. Unless it has something to contribute to the education of the child, it should be done in industry. However, since we have come to believe that education should develop an appreciation for the industrial pursuits of life, the factory system will help the boy realize the importance of his part of life to society as a whole.

Society has advanced to the age of specialization. Every industry has been divided and subdivided into different divisions of work so that one man does one little part of the whole. We as school people have deplored this division of work in industry and especially in our department of work have encouraged the craftsman system. However, deep down in our hearts, we must admit of this method of society. Don't we go to an ear specialist if anything gets the matter with our hearing, and not to the old family physician? If we want information concerning the law for our business we go to a commercial lawyer; to collect insurance, an insurance lawyer, and perhaps you have heard of a criminal lawyer. When our fathers wanted to clean up a town, the minister and his congregation rolled up their sleeves and went after vice bare-handed. Now all the congregations go together and bring in an evangelist, a specialist.

Secrteary Lane said, "We live by unanimous consent." If one group in the world choose not to do their share of the work, we all feel it. If the group who are supposed to furnish us with sugar for some reason chooses not to do so, it imposes a hardship on everyone. So with the group who are supposed to furnish us transportation, and any other group, make living hard by withdrawing their consent.

Last week I heard an eminent man say that this selfishness or thoughtlessness was the most dangerous thing facing the world today. We have got to help meet this situation in our schools and can we not train the boy to see his work as the part of the whole scheme of things when he, as a member of the class is doing one little part of a project which will be a fine piece of work, which every one in the class will be proud of if he does his work well, but perhaps absolutely worthless if his part is not up to the standard? If he should think of not doing his work well, don't you think he could probably anticipate the displeasure of the other members of the class whose work would count for nothing?

One of the greatest objectives in manual training, it seems to me, is to develop confidence in the boy by having turned out what he and anyone who examines will know is a good piece of work. The boy who

has come to the conclusion that he can do nothing and that he is a bungler is a trial to every teacher. In the factory production plan, every boy, even if he only was a little sixth grader and only helped sandpaper, has a part in the work, and therefore looks upon the finished product as his own and is proud of it.

A committee selected to formulate a new course of study for the Manual Arts in Indianapolis stated, "That the purpose of education is to develop appreciation for the fullness of life, intellectually, spiritually, socially and industrially, and to give to every individual the opportunity to attain as high a degree of skill in the expression of this appreciation as that individual's ability will permit." The factory system of work contributes toward this, confidence, improved standards, a realization of the necessity for accuracy, an appreciation of and a desire for good materials and workmanship, and develops a sympathetic understand of work of the trades.

Mr. Siepert: I don't want to take but a moment. My first experience with jigs goes back to the work we used to do at Montclair, New Jersey, when we had some similar situations arising. The work there has gone on until Mr. Riegle puts them in a regular part of the course....Personally I believe the jig has a place, but I do not believe it ought to be the first thing. Some of you may disagree with that. I think if we spend some time teaching the boy how to use his hand tools, with that as a basis, we step into the next stage of industry and teach him how to produce the thing in quantity, and then it might be worth while. I would not reverse the operation and use the jig at the expense of the trainging we can give the individual in the using of hand tools as such. It seems to me the boy needs to learn to work independently of a lot of those devices if he is going to get anywhere in his home repair work. I want to leave that one thing, I believe the place of the jig is after we have had some training with hand tools, rather than before.

Mr. Gossett: I would like to supplement a little bit what I said. I intended to say some things which I didn't get said. I didn't want to leave the impression that we had the idea of jig work and that that is the only thing. Two years ago we had a course of study worked out by a committee of manual training teachers in our schools, and one of the things I wanted brought into that course of study was the thing Mr. Siepert mentioned, and that was every boy wanted the opportunity of working along the line of production after he had his tool operations somewhat mastered, and in the latter part of the seventh grade and the first part of the eight, in one of those places in the course of study, it is put in, or we ask that every class be allowed to get this experience of mass production, of working together toward one end, feeling that this is a part of that work.

COLOR AND DESIGN AS APPLIED TO MANUAL TRAINING PROBLEMS

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Taste is the selection of the right thing in the right place, and how are we going to get that taste? Every human being, every man, woman and child, has their standards of beauty and excellence, and they make their choice according to those standards. With the adult, the man and the woman, it is a difficult matter to run up against their standards. They are fixed; they know what they want, and they know when the thing is right, and you can't do much to convince them that it is otherwise. If I or you, or any of us, were to tell them that their standard is not on the right level, they would kindly remind you of the fact that they know what they like, and that settles it. "I like it because I like it."

With a child, it is different. That is, the age of the children in schools when we get them; they are still to be molded, when we can still form and shape their educational viewpoints, their tendencies, their standards. The public is divided, a small amount of producers and a large mass of consumers. It seems the public school is the place where we should start with the development of taste, of the bringing up of standards. Everyone demands beauty. It is just as necessary to every one of us, to every human being, as the fact we eat and breathe. We exercise judgment, selection, arrangement, taste, appreciation, whatever we may call it, whether we will or not, and the reason that so much of the furniture is of a standard that does not conform with the one we would like to set up is that we have not taught it in the schools.

Can taste be developed? I feel surely that it can. Can it be developed with nearly all of the normal students? Yes. Who must do this thing? You and I, we teachers; it is our job. If the Grand Rapids furniture is popular, it is our fault. If the standard of interior decoration is hideous, it is the public school's fault. We are the trainers, we are the teachers. I feel that everyone's standard can be raised if you catch them young enough. Of course, after they are set, they are like the fire clay, the baked clay; you cannot do any more with it then than to use sledge hammers and that sometimes has bad results.

The question then is, how can we approach this? We have heard a great deal said that the art teachers in the school should co-ordinate with the manual training teacher in putting the art upon the manual projects. If the departments co-ordinate, that would be the best way, but so often that has fallen down and doesn't seem to work.

Then, what is the next expedient? The next is to make the lessons of such a nature that the boy can get it, and if the boy can get it, then the manual training teacher ought to be able to get it. The manual training men are just as anxious to know about the art side of the problems as the boys and if the problems are not made too difficult—that sometimes is the trouble. In the problems of the boys, I like the idea that Mr Kurtzworth expressed, that we must get the boys' interest. Mr. Payne was the man who spoke on the wireless, how boys will do anything to get a wireless apparatus. They love to study; they will get books; you don't have to tell them to go to the library. They will ask you, "Where can I get such information?" and we will tell them in such a book in the library and the boys dig it out. And the boy who wanted the rifle that Mr. Kirby spoke of, he wanted that rifle and he took all the steps and initiative in getting it and found the ex-soldier who could teach him how to use it. When you can get that in the problem, that is boy interest.

If now it has an educational content, if it fits in with the course of study or scheme that is outlined, we have the second point that is important.

Third, does it function in life or in the home? We have to, in a way, play to the gallery of a home. If father is pleased and mother is pleased, why, we get support, but there should be that functioning in life. Is it useful? Does it work? If we can get those three elements in any lesson, we have a very excellent project and it will surely work.

These models that you see here do not represent any particular course of study.....It was more with the idea of showing how design might be developed and how color might be used on the woods. We all are agreed when we have a wood which has a beautiful grain we do not want to use paint on it, and we use stains that we have at our command. Every manual training man knows how to make the stain and fill the wood, how to make the rough finish, and that side is quite essential, and when it comes to paint, he doesn't know quite so much, and when it comes to designing, there are fewer still. The point in hand is how can the manual training man get the design that we ordinarily look to the art department to give us? By seeing, by meeting with the manual training training men and tackling this proposition.

This model is a letter holder. The wood has been stained and on it has been painted with what are known as show card colors. They are opaque water colors painted on the stain after the stain is thoroughly dry. If it is an oil stain, the water color is apt to creep a little bit, but by moistening a soft cloth and rubbing it softly over the surface, you will produce a surface on which the water color takes. The question might come up, are you not mixing water color with oil paints? After all, pigment is nothing but color matter in oil in one

case, and ground it. glycerine and some gum in another case, and the two, if they will go on, and if we give it a finishing coat of shellac or varnish and that holds it, it doesn't seem to me to matter much whether we use the oil or water. I would prefer the oil or enamel paints for the designs, but our schools, as you know, have 18 to 25 boys, and if you have to clean the brushes and the paint, of course, de deteriorates as soon as you open it, then the second method of using water water color or show card colors offers an easier solution. All you have to do is rinse the brushes out in water; that doesn't hurt the brush. The paint sticks and you cover with shellac or varnish.

If I should ask the men here to make this design, (Shows Sewing Stand) they would say, "How do you expect it of me?" When it comes to a problem as far advanced as this, there should be this co-operation of the art department with the manual training department, because that panel being on card board or beaverboard, can be cut to size. The sewing stand can be finished in the shop; all of the work inside and out can be finished in the shop, and then the panel done in the art department and be sent to the manual training department and set in and secured. So that there is one instance where the art department may very splendidly co-operate with the manual training. This is not beyond the manual training man's ability to teach, except that it takes time which he ought to give to woodwork and not to the art side.

In making a design for any one of these problems, making the patterns with the scissors is about the easiest way of approaching one from of the design,—most.

* * * * *

Manual training men so often feel, "Here comes a can of paint marked green. Here is a can marked red; here is one marked yellow." And somehow, I don't know why, they feel that they cannot mix these. "That green paint must not be touched." If you want another color, go and buy it. They hardly think of changing the color of stain....A stain may be Flemish oak, but put a bit of red in that to make a redish gray, or putting other colors in there that would make it lean slightly toward the green and toward the orange or toward the violet.

The point is, how can we get these two together? How can we get the manual training and art jointed hand in hand in developing a project. The art department and manual training should consult each other and should work together as one group. If that is not possible, then it is still within the possibilities of the manual training man to work out these designs himself, and by making these simple steps in these easy stages, it is surprising what variety you can get in your work.

You remember the pencil tray we all have made. We put it in because we want to use the gouge, but why do we want to use the gouge? No one seems to want to use it any more, but there was a

time for all operations we used that gouge. An exhibition of work would show perhaps forty or fifty pencil trays, one just like the other. You might look at one and see if the workmanship was good but you would not look at each pencil tray and you would if art stepped in and made the pencil trays all unlike, as art should. The art side of it should make the problems all different. The manual training on this problem would make them all alike. We might change the proportions; we might make them larger or narrower, but the manual training man realizes what it means to give different size stock to different boys, and the way to overcome that is to have a number of models for each grade, and let the boys select and have such models embody the three ional contact.

We have here a way of doing designs simply, by using colors, a way that you would get at least eighty per cent results with all the boys, a way that is not too difficult for manual training man to teach, and it does develop judgment, and that is the main thing, the thing we are after—this discrimination.

The manufacturer is not to blame for making poor furniture. It is the public. If we train them to demand good things, the manufacturer will fall all over himself to make good things, because he is not in business for his health. He is in business for the dollars. If the public demands fine things, all right, and if he can make a dollar, he is going to make goodthings. The fact of it is that we are not going to make carpenters, or anything of that sort; it is the cultural side, and that cultural side means selection, judgment, arrangement, taste, and discrimination.*

MANUAL TRAINING IN THE COSMOPOLITAN HIGH SCHOOL

MATT J. SCHERER, CLEVELAND HIGH SCHOOL,
ST. LOUIS, MO.

To consider Manual Training in any phase, we are compelled to think of its relations to Vocational Training, with which it has in many places been confounded. There is a distinct need and place for each.

It is the duty of the State to provide vocational training, as well as cultural training, to which Manual Training belongs. In my opinion, the men who have the opportunity of spending four years at High School are not the ones who need vocational training; they are the men who will be the executives or leaders of those who have been vocationally trained. We are told that ten per cent of the total number of boys

*Editor's Note.

Mr. Froehlie's talk was illustrated by many examples of handicraft work to which he frequently referred. For that reason only extracts have been incorporated in this report.

from the grades have the good fortune to attend High School, and from this ten per cent must come the men of the professions and executives of commercial and industrial enterprise.

Manual Training, as a cultural subject, not trade training, I submit, will be more beneficial to the future needs of High School boys than vocational training; a training in a specific trade. Do not understand me to say that boys leaving the grades ought not to be trained in the trades, especially not if they have a definite attitude for some particular trade.

There is greater need today than ever before for men who can lead, and who have the ability to comprehend quickly the necessary course to pursue in the management of men and the affairs of industry. Manual Training tends to develop this alertness.

Boys of the High Schools in their future need to respect manual labor, to have acknowledge of handcraft. They will need to be self-reliant, accurate in thinking and action, careful and neat, patient and well poised; they will need to have the attribute of perseverance and the power of concentration. Manual Training assists in acquiring these educational values.

Manual Training in High School may be used to draw boys from the grades, who otherwise would not attend. This may be successfully accomplished by exhibiting work in grade school rooms and by the introduction of a shortened course of Manual Training, designed to create a desire to continue school work.

In the teaching of Manual Training, I contend, the actual processes should be taught and should be combined with as much informational knowledge of the subject as the time allotted will permit, and should embrace opportunities of working in the technical arts which have educational values and which appeal to the instincts of the active boy.

The technical content of the subject should be so designed to make it especially desirable for the boy who is looking forward to entering civil, electrical or mechanical engineering architecture, the manufacturing industries and trades, or the professions, such as surgery, dentistry and law, where a knowledge of the technical arts, as well as mental alertness is required, and should assure the student of a liberal education and a sound foundation upon which to build either for higher education or future industrial training.

The subjects taught ought to include the following:

Joinery, consisting of a series of lectures on woods, materials and processes used in construction, the use and care of woodworking tools, the processes of measuring, sawing, planing, gauging, chiseling, boring, fitting, glueing, scraping, sanding, and finishing, with the subject of design applied to the projects.

Cabinet Making and Furniture Construction, touching such operations as dovetailing, veneering, paneling, carving, wood finishing, and the use of special tools, such as the plow, rabbit and combinations planes.

Wood Turning consists of lectures on the care of lathe, speeds and operation. Instruction in the theory, use and care of wood turning tools, processes in spindle turning, place and chuck work.

Moulding and Pattern making ought to be taught; dealing with sand tempering, ramming, venting, parting, gating, pouring molds and drawing patterns, shrinkage, draft and finish. The subject of forging ought to include care and use of forge processes of squaring, bending, drawing out and twisting, upsetting, swaging, fullering, welding forging and heat treatment of tool steel.

Auto Mechanics, consisting of lectures and shop practice, familiarizing the student with modern types of gas engines, their construction, use and maintenance.

Machine Shop Practice should embody processes, such as straight and taper turning, drilling, screw cutting, boring, grinding, planing, milling, bringing in the use of lathe, shaper, drill press, milling machine, planer, boring mill and grinder.

The subject of Mechanical Drawing ought to be given collaterally with shop work, and in a general way should include the subject of Free Hand Lettering, use of instruments, Geometrical Problems, Orthographic Projections, Isometric Projections, Shop Sketching, Machine Drawing, Intersection and Development of surfaces, conic sections, shades and shadows, Linear Perspective, Mathematical Curves, cam and gears, Architectural Conventions, Orders of Architecture, and Elementary Architecture.

At the conclusion of the program, Mr Frank Solar was nominated and elected chairman of the Manual Training Round Table for the ensuing year.

INDUSTRIAL DESIGN

H. M. KURTZWORTH

**DIRECTOR OF THE GRAND RAPIDS SCHOOL OF
ART AND INDUSTRY**

PROPOSITIONS.

- I. The Manual Arts educators hold the artistic future of America in their hands. An understanding of the fine products of the past is necessary for future progress.**
- II. The age old fallacy that few are born to appreciate and fewer to create things of beauty must now be overcome, for every human being is devoted to seeking and attaining the beautiful according**

- to the opportunities which his environment and education offers.
- III. The ancient dignity of labor can only be attained in this age by educating the general public to appreciate, buy, use and enjoy the results of fine workmanship.
- IV. If the industrial arts in America have any future, it is because educators have seen their opportunity to increase the appreciation of the general public in matters of design in every day life, and have made the most of the privilege.
- V. America's future in the Arts and Industries lies in the quality of design appreciation and the standard of good taste which the art and manual training instructors give in addition to the technical productive work everywhere in vogue at present.
- VI. To train citizens for production without appreciation is as great a wrong as to train them in the appreciation of the fine products without understanding the labor which made them possible. In a democracy, every worker should be something of an artist (at least in his home) as well as a workman, and every artist must be considerable of a worker if he accomplish his high purpose.

In what manner does manual education enhance the welfare of the individual and the nation?

Off hand, the general answer to that is, boys and girls are helped in manual training training to be able to think in terms of things and to master the technical processes of various branches of work sufficiently to allow them to be able to produce usable objects with their own hands. The boys become handier about the house and the young dress making.

women understand better the home process of cooking, sewing, and

The vocational and industrial aspect of the work would seem to be indicated in that some boys become carpenters, pattern makers, machinists, cabinet makers, and so on as the result of manual training courses, and on the other hand, that girls are helped to become dress makers, house maids, milliners, housekeepers, and cooks through the courses planned especially for them.

The intended effect of such training in all the manual arts, including drawing, is that good workers should make substantial citizens, intelligent home builders, wise consumers, steady producers, and reliable distributors of the goods of life; capable in every way of continuing the nation's advance in the realms of science, industry, economics, and the arts.

Do our courses in art and manual training give the young people of today who are to carry on the work of the nation tomorrow the elements most needed by American citizens to maintain America's place in the arts and industries of the world?

Statistics tell us that only half of the people may be considered producers. They work in mines, on the farms, in factories, offices, and stores. The other maintains the home; they are the consumers who spend the producers' earnings in keeping up the home and in choosing the environment elements necessary in rearing the family. They maintain the central institution of all human endeavor toward which all other organizations bend their effort.

Of the half who are called producers, only one-third of their time is spend, as such, at work. The other sixteen hours they devote to the pursuits and problems of the consumer.

On the whole, therefore, only one-sixth of the nation's daily effort is devoted to industrial production. To production in general, that is, home production as well as factory, store, and field work altogether, only about one-third of the national energy is devoted. The youth of the nation, therefore, need other training besides that which helps them earn a living.

IS CONSUMER TRAINING NECESSARY?

Just as a few years back one had to "pick up" a trade if one were to be practiced, the modern citizen consumer is left entirely upon his own resources in the most important economic and social function that man possesses, namely, that of being able to decide the true worth of the things he needs for his environment—the things which to him constitute the background of life.

Many people consider such problems purely a matter of common-sense,—in fact, almost everybody these days takes it upon himself to pass judgment upon architecture, furnishings, and all the other things which go toward making a home environment. The terrible results are everywhere evident. Streets of ugly houses, rooms full of clumsy and ill-arranged furniture, and color schemes, demonstrate that good is not a matter of personal judgment so much as training in appreciation. Good taste is not a personal matter, but a social problem. A well built and attractive home is a civic asset. Any other kind is a detriment not only to the owner's family and friends in that it reflects a failure on their part to live up to life's possibilities, but because it lowers the living tone of everyone who must see it, and thereby sets degrading standards for the young.

The economic aspects of the consumer's taste, or the lack of it, is almost appalling in its influence upon national progress. The consumer in his ignorance or enlightenment absolutely controls the mercantile and industrial groups of society. Unfortunately, the designer's chief problem today is not to produce something fine, so much as to design things which sell. He is dominated by the prevailing taste of the consuming public because the manufacturer cannot sell to the

merchant articles for which there is no popular demand and every merchant knows that disaster follows any attempt to sell people things to which their standards of taste are not raised through some kind of education.

This nation must raise from its slough of industrial aesthetic ignorance. It must come to see the price it will pay for erecting buildings, making furniture and utensils, the majority of which will not only condemn the present generation but will for centuries remain to mar the true progress of the people. We are determining today the building and the architectural taste which will dominate America's cities as long as they exist. We are branding the character of our future generations by the kind of home environments we create today. Good taste is an all powerful factor in the building of national character. In bygone days the ruling house or the church set the standards of taste. Today the school is the only great leavening influence which can accomplish this all important task.

WHAT IS GOOD TASTE?

How do you know when you have it?

We are all expected to know through even a common schooling what good taste in the mother tongue is. If for no other reason, we acquire an understanding of good taste in the spoken and written word as a business asset and coupled with this study of grammar comes the appreciation of literature which is well taught in most schools.

The church teaches good taste in relation to our dealings with our fellows. Some art courses teach good taste regarding paintings, sculpture, and architecture, but the type of taste that all of the people need most in helping them choose the best in clothes, house, furniture, stoves, dishes, and all the other things that shape their characters as part of their environment is almost entirely left to chance.

Good taste may be defined as the subtle understanding and appreciation of the effect upon us of the beauty and utility of things based on an analytical study of the works of nature and man.

Good taste recognizes in things the possibility of an element beyond their physical necessity which feeds the soul and aids in the living of the well rounded life.

Good taste implies a study and knowledge of the best works produced by man. One may "know what one likes" without having any standard of judgment whatever, but good taste is based upon comparisons. Bad taste is too often founded upon narrow personal preference, without reference to the truer standards of human culture. We have failed to take into consideration the character building qualities of good taste in environment necessary as a home background for the fulfillment of the other moral and cultural developments which

the church has long failed to fully accomplish. People have long been content to have houses and clothing as protection against the elements regardless of their soul building qualities which under stress of physical necessity or economic pressure were neglected.

America's pioneer period is past in many parts of the country. The economic structure of the nation should make it possible for a greater number of Americans to enjoy the subtle cultural aspects of life than was ever possible in any other nation. The reason why they are not able to do so with credit to themselves and the United States is because our democratic educational system is still rearing the young as pioneers, giving them either course of all culture or all work, in which the essential element of appreciation is too often entirely lacking. For instance, it is still possible for pupils to take literary courses and be ignorant of the workaday things of life. Many manual training students are still making furniture without gaining any idea of good design or how to choose such furnishings for a home. Many art students there are, on the other hand, who, while they understand design in the abstract, are unable to apply it to choosing the things of every day life because the courses too often lack definite objectives related to the home life of the individual.

Neither can art or manual training instructors add anything of value to the fabric of life in American homes, stores, and factories unless their teaching is based on the broad foundation of the principles of good taste necessary to all citizens, primarily as consumers and householders and, secondarily, as workers.

Even the part-time and purely vocational student has a right to know where in his trade is an art in order that the humdrum running of a machine may still have some attraction other than the pay envelope and that in his mind he may still proudly connect his monotonous work with the world's masterly creators of useful and beautiful things.

We have no more right to neglect training in good taste in definite connection with the functions of every day life without a knowledge of the standards of good taste in form and color than we have to expect good English composition without the proper training in spelling and grammar.

HISTORIC STANDARDS OF TASTE NEEDED.

There are, on the other hand, educators who would attempt to lead the arts of the nation astray in pretending that an understanding of period and national style developments are unnecessary, and in fact, detrimental to the furtherance of American arts. They proclaim that a study of museum objects is enslaving and blame America's lack of taste upon such studies for having killed originality. Now, I ask you,

was anything beautiful ever created out of a bluesky? Did any youth ever improve upon his grandfather's work by being ignorant of what his forefathers knew and did? Would you teach a child to write (and writing is drawing) without good copies to help guide him? Could he be ignorant of grammar and yet express himself well to trained minds? Did Chippendale produce his masterly chair by ignoring all the other influences of his ancient craft? Has anything good been produced in this country or any other except as the logical development of the needs of the people of today growing out of the best of the industrial arts of yesterday? Man's inspiration is man. The inspiration of the furniture of tomorrow is the mobiliary art of yesterday. The study of our yesterday makes us freemen today today! It is the slavery of ignorance that now enthralles America's industrial arts. Let every educator help overcome this national handicap by himself knowing "historic ornament" and the "period styles".

Remember you are training your vocational classes to use one third of their day unless you inspire them with a desire for the appreciation of the arts connected with their particular trades or with the home life, in which manner their vocation and avocation will not enhance one another. You are training a race of dissatisfied workers unfitted to carry on the welfare of the nation.

No matter how good a worker a person may be, he will become dissatisfied unless his training has brought him to have an interest in life that satisfied his aesthetic instincts.

To most workers, especially under the modern specialized task factory regime, the home is the only means of satisfying the natural craving to do work or achieve results that are satisfying and attractive.

The modern spirit of unrest is the result, to a great extent, of the State's failing to provide instruction in the arts of living. Unless men can be taught to appreciate the beauty connected with their work, if any, and with their home, they will continue in their dissatisfaction in lieu of other diversions.

I want to show you now a way in which the work all of us are doing, whether it be in wood or metal, or whether it be in design or what not, is dependent upon the students, upon the artists, upon the designer, upon the producer, and the consumer, altogether understanding the way in which things are made. For everything that we possess as designers, producers, consumers and distributors has gone through a certain process which for the time being we will call the constructive proces. Everything is the result of someone having an idea and carrying it out in a constructive and concrete fashion. All the arts and industries are related one with another and this really enters into all the things we are doing. It makes no different whether you are building a tuyere for yourself, building a garage, writing a theme, thesis, designing a dress, arranging a bouquet, or what not, you are perform

ing the steps to a great extent of the constructive process.

The first step in making anything is to understand what you want to do.

The second step is to be able to or to have studied good examples. How many of you have museums to which you send your children who are studying costume and design and furniture too in order to appreciate what good furniture is, and so on, before they start to make it?

The next step is to study good examples. You have heard Mr. Howard talk about using things for inspiration and not for the purpose of copying them. We must, however, start to copy good things before we can follow the big ideas we hold in them.

The third step is to make original sketches, and originality by putting steps two where step three should be is a negative kind of originality.

The next step is to make a finished design. The next step is to make a working drawing.

After that comes the selling and buying, and lastly comes the use.

Now, it seems to me that education when it properly fulfills this enables a student to be able to think in terms of the work he is doing in a common class, in terms of the use of the product of the class as applied to life. In other words, you cannot be a good consumer of anything unless you know a great deal of how the thing is made and sold. A great deal of dissatisfaction occurs among our workmen in many plants today because they do not see how design enters into their work, nor do they see how it connects up with their own lives and with the lives of the rest of the people. In everyone of our projections, in drawing, designs and manual arts, if we would apply this to each of them, project by project, the students would see definitely how the school work connected up with every day life, and we would not have an ignorant lot of workmen, who, while they could produce a good piece of furniture, wouldn't know how to buy one, and on the other hand we would have a lot of people who wanted something good and cheap but wouldn't know a good piece when they were confronted with it.

If the people in this country don't want better furniture, it is because they don't know good furniture when they see it. You cannot get people to buy good furniture until they appreciate good furniture, and that means that they understand how good furniture came to be down through history. How many of you realize that you were enjoying the morning session in an Adam room? Did you recognize the type of those chairs? What is the type of building you were in? Those are all types of things, which is an essence of the training which you are giving your students as consumers, and we have pointed out that all of us are consumers, and we have pointed out that all of us

are consumers five-sixths of the time, and producers, as far as energies are concerned, about one-sixth.

I spoke to you about negative originality. If you turn a student loose to design a chair without showing a good chair and he starts off to produce something original, the results will resemble those we have all of us seen in the masterpieces of originality that are produced in that fashion. Students have only lacked the inspiration. The Egyptians started in the same way and they attained a certain height of culture and design. The Assyrians and Greeks and Egyptians had used and built on that. The Romans took all their culture and built on that and then came the Dark Ages, and people started over in a fashion something like this, but they had the benefit of those things although they didn't use them as definitely as the Romans or the Greeks did. This again is developed in the Renaissance times, and we go on into the French and English Renaissance types of interior decoration iron work, wood work, costume, and so on. So it would be foolish to try to develop an American design in furniture, costume, or textile design, or any other kind of design without taking into consideration, without understanding thoroughly, without having learned the alphabet, if you will, of yesterday. This fellow down here is in the position of one who is trying to write an essay without having learned the alphabet. We must at least let our students learn, or give them a background so that when they step off they will go somewhere. There are some books on paint design that start off down here and neglect entirely all this sort of thing, and they have given you some of those masterpieces of which I spoke a minute or so ago

And so I leave that with you. If you are to help America to attain a finer taste than it has today—I am not saying it has a bad taste, mind you—a better taste than it has today, it will be because you in your courses help the students attain to something of a fine taste, as well as making finished workmen of them. I cannot say anything more significant than that. Americans not only have the right to be good workmen, but they have a right to consume any work and be able to appreciate fine things after they are made.

So I leave with you these seven specific things which you can do to help yourselves and your workmen and your manufacturers—and Grand Rapids, if you will purchase better things—and make the nation a more happy nation and a more prosperous nation.

1. Give more free hand drawing in the mechanical drafting courses. The ability to think in three dimensions makes students independent. By means of being able to think in three dimensions, all manner of workmen are made more expert. By coming to draw, the mechanical draftsman comes to understand good types of design.

2. Give more mechanical drafting as a part of the "Art" courses. Every designer must know and control the mechanical ends necessary to produce his design. In that constructive process, the first five steps were concerned purely with design. You go into a factory and you overlook those steps because they are all involved in two or three people in even the biggest plant. The men, however, who are carrying out the ideas of those designers are many indeed. Our manufacturers, many of them, fail to see the advantage and value of having a designer, because they neglect to see his influence because he is not numerous. He is not as numerous as the workmen. There are many schools, and you know them and I know them, in which a person may take a complete course of manual training and mechanical training and not be able to draw with a free hand at all. On the other hand, there are many free hand art courses in which a student may go on for four years and not be able to know how to use the square or triangle and other things that every good workman and producer should know.

3. Include an appreciation of design and an understanding of period styles in all manual arts courses and lead the student to see the relationship between the school problem and the choosing of the good and bad things of every day life. That is not an easy problem to solve. That is a big task that I put up to you, and Grand Rapids is largely to blame for not having helped you to this before, but here is the way you can help yourselves:

4. Form a collection—a school museum of good examples of design and workmanship in various arts and industries to which your students may go and study and become inspired by them.

5. Use a library and museum more and use things to draw from and trace, particularly good motifs which they may classify and use for reference in connection with their school work and their appreciation of design as they find those designs carried out in the home.

6. Have a working library always accessible to the students in drawing in the showroom and in the shops. Include in this library the best books on drawing ornament, design, architecture, lettering, furniture styles, and so forth, as well as the technical books which most of us have there now.

You will find in most of your libraries a mint of perfectly good material, almost overlaid with dust, waiting for your students to use as soon as you inspire them to go there and get it. I think there are a great many opportunities for us to give our students a finer background, largely in teaching them how to use a library. In Grand Rapids, we spend every Monday afternoon in doing research work in the library, and in that way students come to have a great fund of knowledge, which gives them, if they want to study long enough there, a greater fund than you can get in most college courses of design.

7. Hold educational exhibitions of local manufacturers, pointing out to your towns people the relationship between drawings, designs, good workmanship and good taste in various objects; try analyzing these products and exhibiting them in somewhat the same manner as you would follow in their construction, according to the constructive process. It is not enough that people be able to tell the good texture of a texture. They should be able to designate its making and know something of the romance behind it.

So, my friends, there you have, I believe, one of the means of accomplishing something that all of us want to accomplish for our America. If people have good or bad taste today, it is because our educational systems have taught the things we have discovered here. If the people in your town know good furniture, know good interior decoration, know good woodwork, it is because you have applied that taste in your courses. If Grand Rapids makes bad furniture—I think it does not—it is because people want it and we cannot make or design or sell furniture that people will not want to buy. And so perhaps I have explained to you the reasons and the whys and wherefores behind the kind of furniture that is being used in your homes and the kind of furniture you have in your stores, and the kind furniture we have in Grand Rapids, and as soon as our schools teach appreciation as well as workmanship, America will attain to the fine heights which we as educators want to reach.

ART ROUND TABLE

MISS RUTH RAYMOND, CHAIRMAN

ASSISTANT PROFESSOR OF ART EDUCATION

UNIVERSITY OF MINNESOTA

Chairman: The topic we assume for this morning's meeting is "A Unified Constructive Policy for Art Education in this Present Crisis".

It may be unnecessary to discuss whether or not this is a crisis. We all hope that the crisis was past when the Armistice was signed. Those of us who are more optimistically inclined had thought that the depth of emotion and spiritual things which we hardly realized was in this country had been struck and we were going to have an era when the spiritual side of life was going to predominate. We have been disappointed; the crisis is not past; the war is not over. We are perhaps just as far from it as we were. There are people who think that we are headed all wrong, that we are marching just exactly in the wrong direction, and we have got to right-about-face. There are people who think that so long as we adopt the present policy that so many of the nations and that the individuals are adopting of greed, grab and selfishness, that we will have wars and more wars, and more wars to end war. There are people who think that there is an answer in the use of love instead of force. There are people who are willing to try it, and yet the people most anxious to try it are trembling at the thought of the sacrifice it may entail. If we really put the thing to a test, if we would really, instead of being just passive believers in the doctrine of brotherhood, attempt to use brotherhood as a dynamic force, just put it to the test; if we agree that things are not as right as they ought to be, we are certainly anxious to make some change. It is possible that we do agree as art teachers that we have a certain responsibility in this matter. If Shelley was right in his assertion that, "Self-extension which comes from an artistic expression is akin, if not identical, with the benevolent impulses," you can see this possibility lies within our realm as art teachers. Both because of our temperament, because we deal with metaphysical instead of material things, that metaphysical subjects are the ones which impress us most, and because of the tremendous influence we have on the mental side of the children, it does lie in our field. Is it a responsibility that we are ready to assume? When I face the matter myself, I shudder. I get up to this point in my thinking and I step back. I believe as thoroughly as I can believe anything that there is power in thought, that there is force in it, that it is dynamic, if we only tried to put it to the past, we could bring this influence. I do not mean we alone, but if all people worked with a unified policy we could.

I turn from myself and I want to recommend to you, an article in the March Atlantic by L. P. Jacks, on the international mind. His

theory is we are going to involve failure as long as we make politics the one community interest in our thinking; that it is vital that we have these many associations for betterment already established which could be enlarged gradually; he admits it is a slow way, but he thinks it is a sure way, and I think he is right. That is, the idea or the community interest, such as collective bargaining is, the international bank, the insurance, international insurance, the universities. We are already getting interest and inter-play between the universities; the family life, the community of love; the church life, the community of faith. All of these bonds are international, and one, of course, which interests particularly all our interests, the community of interest all over this country, not this country alone, but the whole world, of the idea of brotherhood. With that idea, we will be emphasizing excellence instead of quality. It sounds like an ideal dream, but I like to quote Mr. Stafford, of Minneapolis, in his definition of an idealist. He says an idealist is not an ideal dreamer; he is a doer with the motive of his activity, a high, generous vision rather than a devotion to his own personal interest. Now, I believe we are all ready to agree there must be this high, generous vision. I believe we are all ready to agree that there is no group like an art teachers' group on which to emphasize the vision, the ideal.

What is our material? What are our resources in idealism? The first subject on our program this morning deals with this most important matter.

THE IDEALISM OF ADOLESCENCE

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Discussing children's literature, my friend Mrs. McClintock says that in order to understand the child's point of view, one must stoop down to the level of his eyes and look at the world from out the waving grass tops. I am inclined to talk rather intimately about my subject and to take the viewpoint from the home, where I find the reactions differ greatly from those in the school. Three factors entering into my discussion are youth, society, art.

To present characteristic phases of youth, I would recall to you three sculptured masterpieces; they are McNeil's Sun Vow, Michael Angelo's David, and a classic, The Fallen Icarus.

Intently gazing skyward, following the flight of the arrow, the old chief and the boy express the aspirations of youth and for youth; David lightly poised, strong in his repose, masterful in his sense of power, is youthful achievement; poor Icarus! he of the great and laudable ambition but waxen wings, alas!

So far as young people are concerned, what is meant by the phase so

often used, "the present crisis"? Perhaps the best answer would be a few snapshots secured through comparing experiences with mothers.

A brother and sister were quarreling; the mother was saying the usual things—"One would think you had never had a decent home," etc.—to which came the answer, "Oh, mother, don't be selfish; we are having such fun." A few years later the same sister received two tickets to the opera and invited the same brother to share the treat in preference to anyone else, when the mother fervently exclaimed, "Thank God, you are raised."

In most homes where the process goes on normally, I find that parents just live thru the ordeal. It is when conditions are pathological that the problems of adolescence are brought to the public attention. Interested in a school for dependent girls, I was often disturbed by their runaways, the inference being natural that the school was at fault. It was a comfort to learn the following history of a boy whose home conditions might be classed above the average. A six-footer of fourteen, he had grown so fast that everything in his world was too snug a fit. He felt that he "didn't have his rights;" the sense of injustice reached a climax when he came down to breakfast one morning and found that his brother had eaten all the puffed rice and left him the oatmeal. The usual compliments were passed and the young man disappeared. It later developed that he had started for Texas where he planned to become a cowboy. A year later we find him again starting out. This time his brother accused him of "swiping some candy." Court was convened, witnesses heard, and father had to admit that it did look as if the candy had disappeared, tho it was not a serious matter. Again there was a vacant chair and this note, in which he addressed his father as "Mr. Blank." "When you get this I will be on my way to God's Country. You don't need to look me up or try to. I will send the money for the stuff I am taking when I get it. I may be a thief and a liar but I can't live with those who take a servant's word before mine in the matter of thieving so good bye till I send the money." It was the first cold night of the autumn and the family was rather quiet as each one secretly wondered where Tom was. As a sidelight on youthful errantry, I add that the next morning he was found sleeping sweetly in his own warm bed. The dignified silence which he maintained with regard to the incident has never been broken.

The pith of the story is that his mother glancing thru a book which he had read many times found a western story in which the hero had left home in the same dramatic way and had also written a note of almost identical wording as that to his father. In other words, under the stress of passion, the boy's reading had determined his reaction to such an extent that he unconsciously adopted the language of its hero.

Teachers realize that often a lay figure occupies the school room

seat while the real live person is roaming fields Elysian. Occasionally the veil is lifted and a glimpse of the day dream is revealed as has happened to me while writing this. Fresh from the high school desk come these letters written by a woman of sixteen to a man of the same mature age. Tho her veiled remark, "I've got something awful special to ask you," with its postscript, "If you think this is to——why, remember it's leap year," are suggestions of a shockingly modern feminism, yet the letters hold the delicate perfume of extreme youth and innocence. It is, of course, of interest "that her mother doesn't understand or appreciate her," as is also the description of school room routine as seen thru her eyes. "Yesterday (she says) we had a terrific exam in English but I don't know yet whether I got thru or not because the questions were so crazy you couldn't tell whether you got them right or not. Then today we had oral themes and I nearly died again. Everybody had the giggles and the teacher nearly had a fit and was going to send me out of the class for laughing but he didn't. Tomorrow I have a speed test in typerwriting, an exam in sociology, and one in chemistry. I wish you were here; this school is as dead as the dickens. Mother is away and I am chief cook and bottle washer. I don't mind it except that I hate to cook for a bunch of kids that have a fit if I have chops instead of steak when they asked for chops. You wouldn't mind, would you, ever?"

Note the eternal feminine in this last line! Here we have an illustration of the great underlying factor in adolescent emotionalism. It is reassuring to hear Mrs. Johnson, of Fairhope, say that an opportunity for boys and girls to be acquainted in this way is quite an essential part of education.

The demand for personal rights seem to be characteristic of the period. In the school for dependent girls, I found a strong prejudice against all industrial work because they felt that it represented something distinctive in their condition. They wanted theirs to be just like other schools and had an exaggerated notion that education was in the book. They demanded book education as their right.

Adolescence is marked by an extreme egoism or selfconsciousness. When the young miss stands before the mirror arranging and rearranging her hair in grown-up ways, it is not vanity, but the primitive impulse to take her place among woman. They want to get into the game of life. The field is large and enveloped with the glamor of the unknown, and life is short, Oh, so short! to the man and woman of fourteen. They peer out eagerly into the enchanted future. Opportunity is there, and they must be up and ready. Months are years, and delays raise the rebellious blood to fever heat. They but dimly project themselves into the remote possibilities of twenty-five, and are sure that then the draft of life will become "a stale, flat and unsavory brew." Surcharged with emotion, but limited as to modes of expression, in

the moulds that are furnished by others; the borrowed becomes real; he lives the life of his heroes, and colors the world with the spotlight of suggested emotion.

The influences most powerful in shaping the feelings of the young people today are the movies, ragtime music, sensational literature, the funnies, and newspapers.

I place the moving picture first in the order of its influence because it appeals to the love of adventure, of travel, of quick and exaggerated action, and does so with no demand for mental effort. Did you ever read the advertisements that are competing with the schools? Here is one taken at random from the movie page, listing the attractions of the show, "On With The Dance." "Lavish beyond description," so it runs, "Driven by the lash of unfulfilled desires." "On and on—dancing, loving, thirsting for new sensations, into the abyss."

Don't you think there was a better psychologist behind that advertisement than we have in our schools? Did he understand how to catch the adolescent mind with its "I'll-try-anything-once" slogan?

Song has led the nations to victory; music goes hand in hand with the movies. The Victrola multiplies its influence, and the catchy air too often carries a vulgar song into homes that would censure its sentiment in other form. The insidiousness of this influence makes it a possible factor in vulgarizing feeling.

Here are extracts from the index of a story magazine picked up in my own home: "The Stolen Soul;" "The Puzzle of the Hand;" "Piracy;" "The Mysterious Package;" "Hands Up;" "Footsteps of Fear;" "The Dead and the Quick." We all laugh at Jiggs and "Married Life," but would hesitate to offer them as ideas to our young people. That they do receive distorted glimpses of life is shown by the arguments with which they meet some of its vital issues.

For instance, a boy of sixteen, belonging to a good family, had formed the pool room habit and was also a movie "fan." He came home in great remorse one evening and told his mother that he had "hooked a guy for a five-dollar bill." Everything was done by the parents, without apparent success, to meet the situation and make it a means of awakening him to social consciousness. A few weeks later the boy had earned some money and his father insisted that he make restitution in the only way possible, by giving the amount to charity. He objected, saying, "Gee, Dad, I don't see why I have to do that. They didn't lose the money and besides I earned it and need it." "No," said father, "This is what you stole. The man from whom you took it probably felt the same way. You didn't work for that money." To which came the rejoinder, "Don't you believe it! I'm telling the world it's a hard job to pick a pocket and get away with it," and then to bolster up a losing cause. "Well, look at the stock brokers and rich guys. They soak a fellow for ten thousand dollars and get away with

it, and some poor fellow who picks a pocket gets twenty years." Pressed as to his reasons for taking the money, it became evident that he admired the skill that was required and wanted to test his ability.

I have thrown these crude sketches on the screen in order to get away from abstract theories. We all know them by the score. In a high school in a town near me, about three hundred boys have dropped out this year. I suppose the people who make the surveys will tell us why, but averages don't present any one real live case. I am inclined to think it is often a trivial incident, dislike for a teacher, or discouragement at the psychological moment rather than failure of the large scheme of things, that causes trouble, tho some of the efforts to connect up with this adolescent period do seem petty and superficial. In one high school, they were experimenting with what they called socialized English. One night a member of this class said, "Gee, Dad, we gotta write a history of Chicago. Each one of us has to write a chapter and then it's going to be bound. I've gotta write about railroads. I don't know anything about them." Father tried to show him how to look up material and to interest him in general. A few days later inquiry developed the fact that the assignment had been changed to city government. There was no effort to afford the class any first-hand experience. The assumption seemed to be that because the subject related to their immediate surroundings and because the themes were to be made into book form it would become socialized. This boy waited, of course, till the eleventh hour, made a perfunctory effort, accompanied by much prodding from home. He ended, however, with a flourish, insisting upon a typewritten manuscript, and hiring his brother to print a cover. He delivered it at the last minute of grace at the teacher's door, probably realizing that he had dressed up and "put over" what he knew was a superficial piece of work. Compare the spirit of his performance with that of a real situation, as when a young man says, "Father, let me run the farm myself this year," or "Let me take the old Cadillac and make it over into a racer."

In the world at large, we read of espionage at Passaic, and "The Little Red Schoolhouse" of the National Cash Register Company. In the one case, the workman is denied his constitutional rights of free speech, while in the other, he is given every possible means to develop. Owing to high wages, money is flowing in unaccustomed channels—overalls yielding a thousand per cent profit. Standards are temporarily adjusted to the extravagant expenditure of those who are not educated.

Among the savants, Sr. Oliver Lodge's talk of atomic force makes even the skeptical feel that mankind is on the verge of great unknown changes. Take it all together, the world says, "Let us eat and drink today for tomorrow is the tax collector."

Youth reflects this spirit. It leaps at its conclusions and denies

authority. Never before could it command such wages. The motorcycle and touring car invite from the school door to fields of adventure. It is often the one with the greatest initiative who listens to the call and never comes back. The plodders are left, and in a way, the level of the school product is lowered, and deprived of the trained efficiency of its most ambitious element, and society loses a valuable asset.

What are we going to do about it? If I were a bystander, I should feel hopeless. As a teacher, I must find a way. I see myself of twenty years ago as a detached personality, and recall how enthusiastically I approached my work, how naively I offered it as a cure-all. Perhaps it is age, perhaps it is sharing with our soldiers the glimpses of world stretches, seeing with our aviators mountains and valleys melt together, but I do find that some of my old peaks look like ant hills; I recognize the fact that neither art nor the entire school system can counteract some of the great forces at work in the social caldron.

There is a principle which to myself I call substitution. You remember how mother takes a forbidden treasure away from baby by dangling something else before his eyes till he reaches for the new thing and the other disappears. I have found that in administrative matters there might be disagreement and trouble in face of destructive criticism(while if a sound constructive plan was offered as a substitute for the other, the better would be accepted. The school must offer the youth of today the better things. Is there any doubt that they will be accepted?

A few days ago I heard a lecture on the so-called "New Psychology." It was in fact a very ancient philosophy (by the way quite in accord with the doctrine of substitution), the point being that there are unused reservoirs of energy within each one of us and that it is only when an ideal is sufficiently stimulating that this latent force is liberated.

The ideal is that which seems most desirable and, of course, can be derived from experience only. If this were a scientific treatise, it would be necessary for me to prove step by step that emotions are bound up in ideals, but as we are a body of intuitively trained people, I am sure you will be willing to join me in jumping at the conclusion. I am going to speak tomorrow of the creative process, but I cannot entirely omit its mention in this relation, as it is the very keystone of remedial measures. Psychologists attribute all the pathological symptoms of adolescence to perversions of the creative instinct. We need only to search thru our own private stock of experience to recall the all-absorbing intensity of such activity.

The idealism of youth does not differ from that of other periods except that its objects are shaped as we have seen, by accidental and external influences. The strong emotion, however, is a high power motor which projects with tremendous force along whatever path is

chosen. Under wholesome stimulation, youth accomplishes great feats. I recall a season of forest fires spent at a boys' camp. They worked beside men, bravely, with alertness, and even endurance, so that at the end of two weeks of peril, little boys were men in spirit.

Emotions turned inward become selfish and morbid; over individualized, they run to extremes. Violent temper soon exhausts its supply of words and takes to knives and pistols; the Ruth Randals must drain the cup of passion to its bitter dregs. A young mother of eighteen-months-old Billy, wrote, "He already shows a strong temper and I fear it will be hard to teach him to control it and not suppress his individuality." I replied, "If little Billy shows that kind of individuality, spank him." We have thought too much about self-expression and not enough about the kind of self. What we need is to direct the individual into avenues of social expression instead of those that are egoistic. Kipling's "Wolf pack," the man pack, and all society, are held together by the common elements. The law of unity is the basis of group organization as well as of the fine arts. Whatever creates consciousness of the law is going to enlarge comprehension till the individual finally comes to regard himself as a responsible factor in the large co-operative scheme which we call society.

The universal in art and life is greater than the individualistic and I believe we develop the proper individuality only as we lead it to project itself into the work of others and to conform to accepted standards. We sometimes mistake Bolshevism for creativeness. As youth does borrow the language in which to express its emotions, deriving fresh emotional experience therefrom, it is obvious that the school may start back fires of real worth-while constructive experience to check the wasteful conflagrations.

In the vocational trend of education today we cannot afford to minimize the arts. We laugh at the way the working people are spending their high wages, but isn't it significant that it is not for utilities but for play and the satisfaction of their aesthetic cravings? In a music store lately a little woman with a shawl tied over her head asked the salesman to show her a piano. He took her to the cheapest he had, when she said, "No, I want the best you have," and pointing to a concert grand, said, "That kind." She made the purchase, counted the money out of her pocket handkerchief, and left. The gentleman who told the story and who had been an interested listener, secured her address and in about two weeks rapped at the door of a tiny cottage. As the little woman opened it, he looked into the small front room that was literally filled with this huge instrument, on one end of which was a basket of ironing and on the other a washtub. He said, "I saw you buy your piano, and I was curious to know why you chose that kind." "Well," she replied, "My daughter is going to

take music lessons and I want her to have the very best there is." The world is hungry for beauty and their efforts to secure it are pathetically inadequate.

To narrow the discussion to the field of our own interests, what contribution can fine and industrial art make to the needs of adolescence? Aside from affording definite skill, it should create a sentiment for education; it should create an atmosphere of beauty thru civic or community betterment, school architecture, and school room decoration; last, it should build up standards of good taste thru opportunity for creative activity.

During the war we saw what posters could do in arousing emotion. We know what the advertising man can do toward drawing the youngsters away from school. The great industrial plants are the first to take this hint. Mr. Gerrit Beneker, who by his posters and cartoons during the war kept the men at their wheelbarrows and shovels in the shipbuilding yards, has been employed by the Cleveland Hydraulic Pressed Steel Company to keep the men stimulated in their work, to furnish them with slogans; in other words, to create an ideal for them in reference to their work. Why shouldn't the best talent of the art world be spent on a campaign of keeping young people in school? It was done to a certain extent as a war measure, but it should be as a big campaign now as any that was launched during the war.

With such co-operation as that given by the Public School Art Society of Chicago, a great work has been accomplished in large cities by placing pictures in the schools. Outside of the cities, the extent of such effort is still too limited. Is it too much to hope that in the immediate future artists will realize that no place is more worth their best efforts in mural decoration than the school walls?

Why should I enlarge upon the third point, the development of taste thru creative activity? This thought constitutes the keynote of the entire conference this year, and I leave its development to your more competent speakers.

If in what I have said I have seemed to ignore the splendid results which are being accomplished by our school systems, it is not that I am unmindful of what Mr. Owen pointed out last year, viz., that unless there had been a great deal of good in them, our untrained army could not have achieved what it did. On the other hand, a large percentage of illiteracy, a larger exodus from the school than demanded by economic pressure, a low average of training on the part of teachers, do justify an occasional period of self examination and the reiteration of facts even at the risk of their sounding trite.

A system tends to petrify. In life, the ashes of today's failure and spent energy are cleared away and fires are rekindled for tomorrow's effort. It is only for ideals that we live; it is only when the

school supplies growing ideals that it can be kept alive, for it lives in the lives of its youth.

In closing, I should like to leave you with a *vivid* impression of the emotional value of creative effort. Hauptmann has pictured the eternal struggle of the soul for expression, ever failing, and ever renewing its faith in the vision. May I recall the *Sunken Bell* and the incident where Heinrich, the bell founder, has completed a bell which is to be the great masterpiece of his life. On the way to the mountain church where it is to be hung, evil spirits cast it down into a mere. Heinrich falls with it, and as he is dying exclaims:

If the great Bell Founder who moulded me
Tosses aside His work, I shall not mourn.
When He did hurl me down to the abyss,
After my own poor, faulty, handiwork,
I did not murmur; for my work was bad!
— — the bell that sank into the mere
Was not fit for the heights; it was not fit
To wake the answering echoes of the peaks!

Later, his creative genius, personified as the young woman Rautendelein, visits him, renewing life and inspiration. The joy of his "new born summer" is in these lines:

What's germed within me is worthy of the blessing,
Worthy of ripening, really and indeed.
It is a work like none I had yet conceived;
A chime, of all the noblest metals wrought,
That of itself shall ring, and, ringing, live.
If I put my hand up to my ear,
Straightway I hear it sing. I close my eyes—
Form after form at once grows palpable.
Behold! What now is freely given to me,
Of old, when ye were wont to acclaim me "Master,"
In nameless agony, I vainly sought,
I was no Master then, nor was I happy.
Now am I both; I am happy and a Master.

"DESIGN AND INDUSTRIAL EDUCATION"

GERTRUDE L. CAREY,

SUPERVISOR DRAWING AND INDUSTRIAL ART,

DULUTH PUBLIC SCHOOLS

Young people are today more earnestly than ever before asking for light to guide them to the places for which they are best fitted in the work shops of the world. The question most often asked by those who work with children and young people is, "what kind of training shall we give which will fulfill this purpose of preparing the child to take his place in the world as a happy and useful citizen"?

At present we have apparently caught the spirit of the age and are demanding that the work shall touch human life, appeal to human interests and meet human needs. We no longer believe in a necessary antagonism between interest and effort. With all work worthy of a place in our scheme of life there is, without doubt, an element of drudgery. But back of every task worthy of accomplishment are fundamental and compelling interests that lure us on through the drudgery to the joy of final achievement.

We have come to accept the fact that children learn by doing and not through abstract thinking which comes much later in life. Activity will be an important part of any school program. The nature of children has settled that question for us. Whether it shall be directed into constructive work or whether it shall appear at mischief making is our problem.

Teachers of Drawing and the Industrial Arts are taking advantage of this attitude toward school problems to make Art more of a living thing, and to extend it into the common place things of the home, the school, the shop and the industries; to make things of beauty as well as of use and to demonstrate that Art never stands for sham, weakness or hypocrisy in life or in the work of the world.

One hundred million people in this country are consuming things that go to make up the everyday environment clothing, house furnishings, cotton, woolen, silk, and linen goods, wall papers, automobiles, railroad trains, pictures, statuary, music, and literature. Everyone must patronize the industrial artist, for all must have houses to live in, dishes to eat from, and clothes to wear.

To prepare for this the child in the public schools must be given some appreciation of the enduring achievements of the race to which he belongs and the contribution of each to modern life. This is the only way whereby he can understand the world in which he lives, how modern needs are supplied by the production, manufacture and distribution of goods and the place of design, construction, composition, and color in economic life.

Because man's intelligence has developed mainly through his

efforts to solve the problems of industry, Industrial Education furnishes peculiar opportunities for the mental development of the child. The problems offered are practical and concrete, are suited to his intelligence and furnish a real and vital starting point for the acquisition of information of all kinds. They give him a perspective view of the struggles of the race to maintain and to forward itself on the earth. They make plain how people have learned the advantage and importance of social life. The constant opportunities offered for concerted effort in planning and working out group problems expand the group consciousness of the child. It is by observation and by actual participation in the family, in the school, and in the community, that the child learns why people work together to accomplish certain results; how the home helps the school and the school helps the home; and how both help the neighborhood, the town, the city, and the nation. By facing problems that could not be solved alone, both in war and in peace, people have learned the value of co-operation.

Side by side and pervading all this had developed the love of beauty. Man's growing appreciation of beauty whether in form, in color, in rhythm, in music, or in literature is the indication of this. To learn to express and appreciate beauty in the thousand things of daily life is the right of every child during his school years.

In the school system which I represent, the study of a particular industry is approached from the standpoint of general education. All hand work recommended is based upon the industry studied and includes illustration, design and construction, including the selection, preparation, and manipulation of materials. Typical world industries dealing with universal processes are selected. Textiles and Clothing, Clay and Clay Products, Paper and Paper Products, Transportation, Iron, Steel and Wood Manufactures, furnish subjects having a background of art, literature and informational material with which all people of true culture should be familiar. Such universal processes as weaving, casting, soldering, book making, drawing to illustrate construction, drawing to illustrate a story or an historical event, and drawing to make a design are used with a view to familiarizing children with materials and clearing up hazy ideas through participation in activities related to the industry.

In such a scheme drawing has the double function stated by Mr. Sergeant in "How Children Learn to Draw" first, "As a means of intellectual expression differing from verbal language and therefore offering a unique method of analyzing and dealing with subjects and showing them in a new light; in other words as a means not only of expressing thought but as a means of developing and shaping thought. Second, its use as a form of aesthetic expression; a means of developing appreciation, and an avenue to the sources of aesthetic enjoyment."

As soon as the industry is chosen the class is set to work invest-

igating it and collecting information about it from all available sources. Some of the material will be obtained through actual contact with those engaged in the industry or with those who handle its products. .Some facts will have to be obtained from reference books, and much valuable information can be collected by writing to manufacturing firms advertised in magazines and newspapers. Assignments covering such topics as the following are made:

The value of the industry to man, and how we are affected by it.

The history of the industry and evolution.

Inventions related to the industry and the effect of each. Characteristics of the product, possibilities and limitations.

Materials employed, and where they come from.

Classification of processes involved as skilled and unskilled.

Tools used.

Healthfulness of the kinds of work involved.

Hours, wages, and training of the workers.

Part played in the industry by several subjects such as mathematics, chemistry, etc.

Part played by drawing and design.

The industry as depicted in art and references to it in literature.

A concrete example of the development of such an Industrial Art project will make clear the plan. The children of the Fourth Grade study their home city—Duluth, Minnesota. The aim of the teacher is to get before the children something worth while about Duluth that will interest them and start activities of some nature going. This way start from a picture post card, a bulletin from the Commercial Club, a story of the Chippewa Indians who once lived where Duluth stands, a visit to an industrial plant, and incident connected with Duluth's industries such as the deep water to the ocean or an excursion to the Aerial Bridge, the entrance to the harbor.

The teacher will have a plan in mind which will necessitate work in drawing, color, design, construction, composition, geography, arithmetic, new spelling words, perhaps a song, and literature. She is, however, as alert and ready to accept a better plan offered by the children as she is to push her own scheme.

The plan of execution is a group affair. The object or activity which most typically represents Duluth is decided upon, and ways and means of execution are discussed. No individual is prevented from making original contributions but the general scheme adopted by the group becomes the nucleus for all contributions.

The Harbor of Duluth with the canal and Aerial Bridge is commonly chosen for representing activities about Duluth. In some cases the modelling of the bridge is group work in clay, (shows picture) sometimes the group lays out the topographical location and the bridge is made of an Erecto toy by one or two children, or by a boy and his

father at home. Where individuals have started special contributions a group almost invariably offers suggestions to make them more complete. In this way a wooden bridge was made to move by string attachments, and an Erecto bridge was connected with an electric battery which not only made the bridge move, but lighted the lamps on the arms of the canal as well.

In executing this work, the problems of proportion, of relative size, picturesque situation, of shipping tonnage, land and water forms, of cargoes both outgoing and incoming, of related industries and destination of products, of housing and community interests, call for mathematics. the writing of letters to the Duluth Commercial Club, the various manufacturing plants, and the Duluth Art Association; the searching through the dictionary and adding new words to both oral and spelling vocabulary, the writing of compositions descriptive of phases of Duluth life, and the drawing and modelling of boats passing in and out of the canal. Sometimes the children make a Duluth booklet as a means of assembling their best work. (Shows book.) Sometimes they organize an exhibition to show the history of Duluth and its industries. Pictures are cut, drawn, and taken from magazines, carefully mounted in accordance with ideals of form, color and spacing. Signs are printed, the letters being either cut from paper, printed by hand, or with the sign marker. Samples of iron and steel, from ore to the finished products, wool from fleece to cloth, etc., are collected and arranged for display. Perhaps a special afternoon of the exhibition is devoted to a play for the benefit of parents or other rooms in the school dramatizing the growth of Duluth. When this is done the children work out the setting and the costumes. Oral English is a necessity each moment. Discussion of ideas requires clear statements to gain the attentive ear of co-workers. The control of the conversation period passes through teacher control, and group control to self control and the spirit rather than the form of the socialized recitation is emphasized.

During the execution of the project the "drill" phase of the work is not neglected. The bridge is drawn in all positions, and cut paper posters of the bridge at night with the big lake freighters passing through are made. Perspective becomes a fascinating quest and children willingly and eagerly draw and redraw in order to make the bridge and the boats "look right." Mathematical computations require skill in the four fundamental processes. Children needing extra drill ask for practice sheets and the necessity for such work is pointed out to them. The Studebaker and Curtis Practice Sheets help to solve the drill necessity in Arithmetic.

Reading receives a stimulus from the desire to gain information. The Literature of reading is not neglected for the purely informational. The room library as well as text books at the public library offer material for this.

Judgments are constantly being made during the work. Standards of excellency in representation, design, color, construction, stability, form, etc., are discussed, formulated, and constantly improved upon. These judgments set new activities going both for this present interest and for other projects which may follow.

The work calls for whole hearted interest and conscious effort from the children. The percentage of individual participation in class room activity is increased and the teacher guides and promotes activity instead of outlining and taking a domineering stand.

This is but one of many such projects ranging from the perennial Peter Rabbit and his ravages on Mr. McGregor's garden, to the Athenian Acropolis and the Roman Forum. The History Course calls for a study of Greek and Roman history in the Sixth Grade. One group of children decided to make a reproduction in clay of the Acropolis in the time of Pericles, another the old Roman Forum with a view to finding out what contributions the Greeks and the Romans have made to civilization. The children and teachers at once set to work collecting information about Greece and Rome. In order to make the model true they were led into a study of the proportions of the Parthenon, the Temple of the Wingless Victory, the Erechtheum, and other buildings. The materials and the three Greek orders of Architecture, the freize, several Greek borders, Greek vases, their use, decorations, how they were made, etc., the Grecian religions and a list of the gods and goddesses, a study of the Olympic games and their influence, the Trojan War, etc., all came in for investigation. A corner view of the Parthenon furnished an excellent opportunity for drill in perspective. Starting with the key lines and developed step by step according to Mr. Sergent's methods in *How Children Learn to Draw*, after sufficient drill each child was able to make a creditable drawing of the building. One group made a Greek primer each child contributing an illustrated couplet:

S for thy Styx where Achilles was dipped;

T for Troy of its great treasures stript.

(Shows book.)

The Roman Forum, Roman Aqueducts and Roman roads, were worked out in a similar way combining History, Geography, Arithmetic, Clay Modeling, Drawing, Literature and Spelling in such a way as to make it a delight to both children and teachers and a means of creating an atmosphere of work done for the joy of achievement, in contrast to the popular notion that play is the absence of work.

Such work tends to vitalize and therefore to unify and simplify the curriculum. It demonstrates the fact that projects well chosen and processes wisely carried through serve two important ends; first, to open the child's mind to the significance of the regular subjects of

the curriculum and second, serve as an introduction to the understanding of various processes by which all useful raw material are extracted from the earth and transformed into objects of human use and beauty.

Advantage should be taken of this relationship which exists between Art and the accepted Courses of Study in Junior and Senior High School. This cannot be done until Art classes are organized with the same seriousness granted without question, to the so-called regular subjects.

Nothing but a general knowledge of Art principles can be provided in a class made up of textile girls, wood-working boys, and perhaps commercial girls and boys. Junior and Senior High School students cannot carry general principles over into specific applications. Boys taking shop work should learn to talk with their pencils, thus learning to use drawing as the language of industry. They should be able to describe a joint by means of a sketch quickly made. Ask a class of boys who can represent accurately objects placed before them, to describe some tool process and they are unable to visualize.

Printing offers unlimited opportunities for the direct application of design principles. It is to be regretted that the printing classes in too many High Schools spend most of the time on productive work for the school.

If girls in sewing and millinery classes were able to make free-hand sketches of the human figure, adopting their designs to the needs of the wearer, it might help to hasten the time when women need not be slaves to the ever changing fashions unless they choose so to be. While teachers of sewing and household arts have training in Design and much natural ability, we believe that one who has studied art in the broadest sense for many years is better fitted to teach it than one who has had short and highly specialized course.

Too little design is required in all Smith Hughes classes. We believe this association should recommend that more design and free-hand drawing accompany the shop and laboratory work as a required related subject.

There is nothing new in the problems which I have suggested. It is rather that the aim in presenting them has grown more specific. When we begin to realize that everything made must first be designed, that design is not something added to an object; a decoration, which may be omitted or applied as desired; but rather, that the designing is the plan, and that this plan includes the whole structure, with or without enrichments or embellishments, art will cease to be a special subject but a vital force underlying all that is fine and enduring and will find its place not only in the industries and economic life, but in general education.

We believe Mr. Dow is right when he says:

"The race has expressed emotion through design in one form or another since the beginning; that is through Order, Quality, Harmony. You may discover new qualities, strange harmonies, but you will never persuade the world that noise is music, that lawlessness is freedom, that utility is all that is necessary in life."

VOCATIONAL ROUND TABLE

*CHARLES A. BENNETT, CHAIRMAN,
DEAN OF TECHNOLOGY, BRADLEY POLYTECHNIC INSTITUTE,
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HOW INDUSTRY IS MEETING THE PROBLEM OF INDUSTRIAL EDUCATION

PROFESSOR GEORGE E. MYERS,
UNIVERSITY OF MICHIGAN.

Mr. Chairman, ladies and gentlemen: In these days when we are doing so much through the public schools for industrial education it is well worth our while to stop for a few moments to consider what is being done by industry for the same purpose.

Five years ago, while connected with the New York City school system, I visited every industrial establishment in Greater New York which employed twenty or more children under sixteen years of age. As a representative of the city board of education I proposed that, if these boys and girls were excused from work four hours per week and a place provided by the company for class-room purposes, the board of education would send a suitable teacher to the plant and provide the supplies necessary for carrying on instruction. We offered to give such instruction as was related to the industry in which these children were employed, and to make the instruction as valuable as possible in preparing the young workers for more responsible positions. Further, we proposed to supervise the teacher's work in order to make sure that it accomplished the purposes for which it was organized. Notwithstanding this generous proposal on the part of the board of education not a single company accepted the arrangement. Several managers of plants expressed their willingness to do this if all of the other companies engaged in the same work did so, but the general attitude was that a company could not afford to release young workers from employment four hours per week for educational purposes even though the cost of instruction was borne by the city.

A few days ago at Akron, Ohio, Goodyear Hall, an educational and recreational building costing \$3,000,000 and paid for entirely by the Goodyear Tire and Rubber Company, was dedicated. Three entire floors of this immense building are occupied by the Goodyear Industrial University. This institution gives courses of all grades from Elementary English for foreigners to the usual University post-grad-

*In the absence of Mr. McKinney, Mr. Bennett was appointed by the President to preside at this meeting.

uate subjects. Classes are in session from 7:00 o'clock in the morning until 11:00 o'clock at night, and more than 5,000 employes of the Goodyear company are registered as students. The salaries of more than fifty teachers and all other costs of instruction are paid by the company. A large number of the students attend classes on company time, or in other words receive pay at the usual rate while receiving instruction.

This contrast, striking as it is, is fairly typical of the change that has come in the attitude of industry as a whole towards industrial education in recent years. On every hand there is evidence that industry is now considering, and considering seriously, the problem of training industrial workers. The war, with its tremendous demand for skilled workers and with its surprising results from relatively brief periods of training hastily organized, taught industry the necessity of this. And conditions since the war have only served to emphasize it.

But let us examine more carefully how industry is meeting this problem. We learn that industry is trying to find out what is needed.

Leaders in industry have long known that trained officers are necessary and have selected for the more responsible positions men who have come up in the plant through a long period of training with constantly increasing duties and responsibilities. For years past some companies have gone out to our engineering colleges and have selected the best trained graduates they could obtain only to put them through further long and arduous training in their plant in preparation for important positions.

Also the managers of some industrial plants have realized that they must do something to keep up their force of highly skilled mechanics, tool makers, machinists, diesinkers, pattern makers, etc., and have given their support to various efforts to accomplish this result.

At the present time, however, industrial employers are thinking far beyond the training of the more responsible officers and the highly-skilled mechanics. They are trying to find out what training the foremen, these non-commissioned officers of industry who have been promoted from the ranks, need in order to reduce labor turn-over and to get the best results from their men. The growth of interest in foreman-training and the extent to which industrial companies are seeking information as to what should be done along this line are astonishing to one who has not kept in close touch with these movements.

Again, industrial employers are asking what training the semi-skilled operative needs when he is taken into employment, and what further training he needs when he is transferred from one department to another. They are considering the training needs of un-

skilled workers, and especially of foreigners, in order that the morals of the entire force of workers may be kept at its maximum.

In fact, industry is facing today as it has never faced in the past, the problem of training its entire personnel. And it is seeking as it has never sought before to find out just what training is needed by every workers in the entire organization.

Industry is trying to find the best way to provide what is needed.

Different corporations are approaching this matter in different ways, but all over the country progressive companies not only are trying to find out what is needed but also to work out an organization, or to support one already built up, to supply the need. Some of the efforts along this line have already been suggested by what I have said. Here are five that seem to be most significant:

1. The vestibule school conducted in the plant by the company.

The purpose of this school, as its name implies, is to help the new worker over the threshold of his job. Its place is in those occupations which can be mastered in a relatively short time, such as semi-automatic machine operating, the simpler assembling and inspecting. As we all know, the vestibule school was particularly useful in training women for work in munitions plants during the war. For several months such a school in the Packard Motor Car Company's plant had two hundred women in regular attendance, each woman taking two weeks of training on pay before becoming a regular worker on Liberty motors for army air planes. But this type of school has survived the war and has become recognized as a permanent and important means of training the class of workers for which it is suited, both men and women, in the larger industrial establishments.

2. The up-grading school is for improving the work of those already employed in the plant or for preparing them for new responsibilities.

It may be conducted by the company or by the public schools or by some other agency. We are concerned with it here, however, only insofar as industrial establishments use it. Many large companies have found that the upgrading school supplements the vestibule school and have been led from the establishment of the one to the development of the other, usually under the same management.

3. Apprenticeship in the highly-skilled trades still appeals strongly to industry, and many large plants maintain schools for apprentices with definite periods for technical instruction and more or less careful supervision over the shop work done by apprentices. Some of the plants are looking to the public schools to provide the technical instruction, and in Wisconsin, largely through the initiative of industry, legislation has been enacted requiring apprentices to attend classes provided by the schools.

4. The organization of training departments in industrial establishments is probably the most significant step yet taken by industry in meeting the problem of industrial education. Training departments not only provide the organization for carrying on such educational work as the management may consider desirable. They provide an organization whose business it is to study the whole training problem for the entire company, to analyze the different jobs performed in the plant, and determine what training is required for each job, to work out a comprehensive program and to "sell" this program to the management. The organization of such a department in any industrial establishment, with a capable and high-salaried man in charge, who has authority commensurate with his salary, means that the plant intends to make a business of industrial education the same as it does of buying materials and selling product. When this condition becomes general, industrial education will have arrived. And this is the direction which industry's attack on the problem is taking.

It does not follow, as some may infer, that public industrial education will suffer from this arrangement. Training departments should and do work in co-operation with public vocational schools. They encourage their men to take public evening school courses, they are in position to see that credit towards promotion is given for such work, to arrange with high schools for co-operative high school courses if these prove desirable, to assist the schools in many ways in meeting the needs of compulsory part-time education, etc. If training departments accomplish their real function they will provide in the plant such training as is not already available in satisfactory form or cannot readily be made so available, and they will strongly support public industrial education in relatively small plants than in plants which are sufficiently large to maintain training departments comprehensive enough to meet the needs of all employees.

5. Industry is planning a great national industrial and commercial university. The National Association of Corporation Schools, representing one hundred and fifty of the principal corporations engaged in training their employees, is responsible for this movement. To quote from the Association's announcement:

"The purpose of the university will be to make investigations and to conduct courses designed to train efficient executives in all of the departments of the field of personnel relations in industrial and commercial life. In this field will be found employment, training, thrift, profit-sharing, co-operative management, health and safety welfare, and all other activities which relate to the best interest of employees as well as management and of the employers."

While this institution seems to be primarily for officers of indus-

trial and business enterprises, it has great possibilities as a means for the study of industrial education problems, since it would have free access to many of the largest industrial organizations; and it would probably prepare men to take charge of and to instruct in training departments.

* * * * *

So far we have considered only the employer's side of industry. If our discussion is to be comprehensive we should also take account of the employee side, and ask ourselves how labor is meeting the problems of industrial education. There is time today to discuss this only very briefly.

We are all aware that workers in large numbers are taking advantage of opportunities for adult education, whether offered by corporations or by the public. One-sixth of the Goodyear employees are enrolled in the Goodyear Industrial University. Six thousand employed workers are enrolled in part-time and evening classes in the Cass Technical High School of this city, and most large cities have evening industrial school work on a large scale.

Again, it is well-known that labor organizations as a rule stand strongly for development of industrial education especially under public supervision and control, insisting only that it shall be based upon a careful survey of community needs and shall not serve as a means to create an over-supply of skilled labor. The American Federation of Labor has gone on record again and again in favor of part-time and evening industrial schools.

There is, however, another educational movement among labor organizations, newer and less well-known, which I wish especially to stress today. In Great Britain it is known as the Tutorial Class Movement. In this country work of similar character, though as yet with aims less clearly defined and still poorly organized, goes by a variety of names. In Boston it is called The Trade Union College.

The Tutorial Class Movement originated in a conference called by the Worker's Educational Association at Oxford University in 1907. A committee of University representatives, and representatives of labor organizations drew up the original plan. Since then every University in England and Wales has taken up Tutorial classes as part of its normal work, each university having its joint committee nominated by the Worker's Educational Association to deal with all matters relating to these special classes. They are, of course, extension classes. The course covers three winter sessions of 24 weeks, one session of two hours each week, a total of 172 hours. Each student agrees to attend the entire course. In 1918-19 there were 3,783 students, 1,685 of them

women, enrolled in the Tutorial Classes. The subjects studied include economic history, economics, political history, political science, sociology, psychology, philosophy, biology, ethics, English literature, geography and natural science. In addition to the three-year Tutorial Classes several hundred one-year classes in the same subjects are maintained.

The Trade Union College of Boston, only a year old last month, gives courses in English, history of trade unions, shop committees and collective bargaining, history of the freedom of labor, labor administration, history of labor in America, representative government, theory and practice of democracy, economics, the distribution of wealth, and physics. Similar colleges have since been organized or are planned in several other American cities, including the National capital.

It is fair to ask what the English Tutorial Class movement and the American Trade Union College have to do, or are likely to have to do, with industrial education? Do they not deal rather with purely non-vocational subjects?

We are in danger of interpreting industrial education too narrowly. We have been too ready to think only of manipulative skill and technical knowledge when we talk of industrial education. We have left out of account the worker's group consciousness and responsibilities, his attitudes of mind, his reactions to economic conditions which press upon him but about which he knows little or nothing. ..Even from the point of view of the economic efficiency of labor, to say nothing of other more fundamental considerations, there factors must be considered in a comprehensive program of industrial education. It is fortunate indeed that labor organizations are calling to their aid able and fair-minded instructors from the colleges and universities in this work, and it is to be hoped that a permanent and mutually helpful relationship may thus be brought about between our higher educational institutions and labor.

I have attempted to present in these few minutes the activities of employers in industry in meeting this problem, and some of the activities of labor in meeting this problem—labor organizations particularly. I do not wish you to think for a moment, however, that I have covered the field by any means. There are many other points to be considered, and I could but briefly mention some of them in my discussion.

DISCUSSION

Question: I would like to ask Doctor Myers if the conditions in the labor world change, and the demand for labor, especially skilled labor, becomes very much smaller, whether that won't make a difference in the problem?

Professor Myers: I don't anticipate that conditions will change sufficiently to make great difference in the size of our problem. There will be changes which will affect aspects of it, certainly. For example, certain trades will receive more emphasis than they have in the past. New trades will spring up. Acetylene welding is a trade which has come into prominence mostly since the war, although it was practiced to some extent several years prior to the war. We know there are a great number of acetylene welders needed, and our schools are training a great many men for that work. The Cass Technical High School in this city is training men for acetylene welding.

New trades will spring up in the same way, and skilled workers will be required. On the other hand, however, some trades will gradually die out; but I have no doubt that as long as industry exists there will be the necessity for this sort of training.

But as to the elimination of the necessity for industrial education through the development of automatic machinery, through standardization of product, and specialization of process, etc., we shall, of course, change the number of skilled workers required; we have already changed considerably the number of highly skilled machinists required, but the total number of people who require some industrial education, or some education with reference to the work in which they are engaged, is, I think, pretty sure to remain as large as it is today, if it doesn't grow larger. I don't know whether that answers the question you had in mind.

Question: I meant that partly; but do you think employers will be as eager to help out in this sort of work?

Professor Myers: I think unquestionably that employers are going to organize more and more for the training of their own workmen. I recognize, of course, that the working out of a comprehensive program of education for the workers in an industrial plant is possible only in case we have a large company, and we have many more workers employed in relatively small companies than we have in our large companies, notwithstanding the fact that Detroit has so many large companies. Now, I think that the manufacturers in these larger plants are going to do more and more right along in working out this problem for the education of their workers, and it will be along these lines of economic and sociological problems, as well as along the lines of proficiency in the performance of any particular job in the plant. That is illustrated, I think, particularly in the work at the Goodyear Industrial University, as they call it, at Akron where the whole list of courses offered is financed by the company entirely. Now, of course they excuse men from work to attend some of these courses, and other courses are given in the evening, and upon the men's own time.

Question: What percentage of the men at the Goodyear Plant are Americans and what percentage foreigners?

Professor Myers: I haven't visited the plant and I cannot answer authoritatively, but I was talking only the other day with a gentleman who had been there in the last two or three weeks, and he made the statement that they told him ninety per cent of their employees were American. I was surprised that the figure was anything as large as that, but they told him that was the figure. I cannot vouch for it. I was surprised that the percentage was so high.

Chairman: I would like to ask Dr. Myers if there is any indication yet where the line will be drawn—if there is to be any line—between what the function of the public school is and the function of industry. At the present time you indicate there is a good deal of overlapping, and I suppose that there will be in the future for quite a while.

Professor Myers: I might say that any lines which are likely to be drawn will be of help to us in outlining industrial courses. I am glad that question has come up. I think that the work of the vestibule school is the employer's problem almost wholly. It has dealt, up to the present time at any rate, almost wholly with occupations which require a relatively brief time to learn, and which, as a rule, demand pretty extensive industrial equipment. I think employers will continue that work and will take it up more than they have in the past. There has been something of a let-up in it since the war closed, but I understand interest is again developing in the vestibule school among employers. I think that the public will or may have to do something with it, and also with the up-grading school, as far as the smaller companies are concerned. I don't know just how we are going to work that out yet, but it is true, of course, that the smaller companies cannot maintain expensive training departments as can the larger companies. I have not thought that out, and I cannot say to what extent the public should go in doing extensive work for the smaller employers. I question whether the public school ought at the present time to go into it at all. Certainly not very extensively. Of course, public schools are in position to do a great deal of evening school work of all kinds, both manipulative and technical and also along economic lines; and the public schools are also in position to do an enormous amount of good through the compulsory part-time school which Professor Payne is going to discuss a little later. I believe that is the most fertile field at the present time for the public schools in relation to industry. I think this is true, also, that as training departments develop in manufacturing companies, there ought to come about a very cordial relationship between those in charge of these training departments and those in charge of vocational education in the same city, and that they ought to work out their problems together, so that when it was found that the company could do this particular piece of work better than the public school could do it, it should be left to the

company, and vice versa. I think the solution lies in the working out of a close co-operative arrangement between those who are responsible for training in the manufacturing plants and those who are responsible for industrial education in the public school system.

WHAT THE PUBLIC SCHOOLS CAN OFFER IN A PRACTICAL COURSE IN HOME-MAKING

MISS HELEN LIVINGSTONE, CASS TECHNICAL HIGH SCHOOL

DETROIT, MICHIGAN

Because of the many terms used for the different aspects of home economics, confusion often arises when planning for work in this field of education. The troubles seems to lie in the fact that situations have not been carefully analyzed, and the aims of the various courses not clearly stated.

Homemaking as a vocation for women and girls is very different from the home economics work which they may take for general education.

Perhaps it would be as well to analyze the situation as we find it in the public schools today. Sometimes it seems as if every new term which appears above the horizon is applied to every phase of home economics instruction. For example, the terms domestic, science, and art, household economy, household science and art, household arts, and home making have been assigned to any instruction that is given in home economics, without due consideration of the aims and content of the courses. Most of the courses given under these titles mean, more or less extended courses in the preparation of food or the making of clothing, or a combination of the two.

It would seem a more efficient method of procedure to use the term "home making" only in the designation of courses which have vocational homemaking for their aim.

It is estimated that there are at least sixteen million home makers in the United States. This number would lead to the conclusion that the vocation of home making was not only popular, but that the number of woman so employed warrant the giving of considerable thought and energy toward their specific training for this vocation.

The work given in a home making course is quite different from the home economics work a pupil would take for general education. The point of view is different.

Home economic course which contributes to general education may be given to pupils of elementary, secondary or college age, but vocational home making will not function below the secondary school age.

The general home economics course should be carefully adapted to the interest of the pupils and the needs of the community which they

represent. If the subject matter is so presented that it meets the immediate needs of the pupils there is a splendid chance that the interest will carry over and they will return for further work and for home making training when the problem presents itself to them. One of the aims of general courses should be the training of pupils to be intelligent consumers. Courses well adapted to the interest and need of the pupils should prove to be great socializing factors.

Vocational home making should have for its aim the definite training for the various duties required of the home maker and the improvement of her ability as a worker.

The public school has a wide field of service before it in this respect. Again, the subject matter should be carefully chosen and presented so that it will be applicable in the community that is represented by the group in question.

Courses in home making may be given by the public school, in high school (all day), in part-time, and in evening schools.

The problem of the rural high school is quite different from the urban high school. As a rule the majority of girls living in a rural community remain at home until their marriage. If a girl takes a full-time day course in home making at high school and after graduation stays in her mother's home as junior partner for a time, or until she makes her own home, the training certainly functions and is vocational. Hence there will be a larger proportion of pupils electing home making in the rural high school than in the city school.

The average city girl anticipates entering some industrial pursuit following her high school course and probable will not be interested in the study of vocational home making until she is ready to make her own home. For this reason the demand is not so great in a city high school for home making course.

However, there is usually a pressing demand for evening school courses in home making by young women from industry who are expecting to be married. To fill this need is the greatest opportunity which presents itself to the public schools for home making training, because the group making the demand feels very definitely their need for help. This group usually asks for instruction in the preparation of food and this may be easily made introductory to other phases of home making. These courses should be planned conscientiously so that the pupils will receive valuable help with the problems which confront all home making beginners.

It should be remembered that all vocational education should provide for promotion or up-grading within the vocation; and that a goodly group of mature home makers with more or less experience will expect assistance from the public schools with their problem.

Credit should be given this group in the plan of work their exper-

ience and knowledge. Their interest will lie in the obtaining of scientific explanation of facts known to them; on acquiring dependable information about recent developments of household interest; or in obtaining more efficient methods of handling familiar material.

In considering public school education the question of equipment is sometimes perplexing. What is the necessary and available equipment for teaching home making in the public school?

The organization of the usual public school is just as different as is possible from the ordinary home so that the selection of equipment for use in the school to train homemaking requires especially good judgment. The equipment should as nearly as possible duplicate home equipment, and at the same time be useful for efficient school room teaching.

It is quite safe to recommend that the equipment be chosen with the community, it is to serve, in mind. It should also pave the way for the raising of standards where it is wise to do so.

It is generally conceded at the present time that the unit kitchen equipment is probably at the most desirable for the use of vocational home making classes. It comes the nearest to being a real home equipment for the kitchen. A unit equipment made up of several kitchens, furnished in different styles and prices affords a good opportunity for pupils not only to work under more natural conditions, but to form judgments as to the efficiency of kitchens equipped at different prices and kinds of equipment.

But it is quite impossible for the average school to afford the floor space necessary to carry out this scheme in details for every room represented in the home. In fact, it is sometimes almost too expensive to even venture it for one room.

Many schools have in their equipment representative rooms like a bedroom or dining room and a few will have in their plan a complete apartment or house. The use of the pupil's home as a laboratory is a more recent development. It is similar to the idea of the one-half-day in and one-half-day out, or the week in and week out program some of the schools have tried in co-operation with the industries. In this way the school benefits from the use of the equipment of the industry, and the pupils gain the shop atmosphere.

It is my opinion that the home project work is difficult to supervise and that necessary standards should be established through drill in the school before home project is assigned. It is no doubt an excellent method of instruction.

Too much emphasis cannot be placed upon the fact that the community should be carefully surveyed and its need realized before the courses in home making are installed.

The city presents a different problem from the country district and

there are as many problems within the city as there are different communities within its gates.

The point of view each community differs according to the interests and experience of the people living in the community, so that the approach to each is different.

The method used in presenting the subject matter must be adapted to the interests and needs of the various communities if the courses in home making are to have any worth.

DISCUSSION

Professor Payne: I would like to ask Miss Livingstone if she knows of any place where there has been a real, thorough scientific analysis of the vocation of home-making which could be used as a basis for the establishing of home-making courses. It seems to me that would be the first and most necessary step. Do you know of any such analysis?

Miss Livingstone: I do not think of any place that has done that to any extent, but I certainly think it should be done. I think we have failed since the Smith-Hughes law has come into effect in taking over the home economics work that we were doing in that we have not developed it sufficiently. We may not have had time to do that yet; but it should be made into real home-making courses. The home economics work that we have been doing in the past has been mostly making a show, as you all know; we have not been able to do real home work, and mostly because we could not have the equipment in the school for the work or could not give the space for it. I think if we use the home as a laboratory we can have regular vocational home making courses planned as we feel the need. At the present time I do not know of any district or city that has made the survey, community survey which I mentioned, and adapted courses and put in equipment according to that survey. Some one in the audience may know of something done along that line.

Professor Payne: Is it not true, Miss Livingstone, that in the formulation of vocational home making and economics courses the factors which have the greatest weight in the arrangement of these courses are the factors which are already in the school; that is, "Do we have the space for it?" "Do we have a room for it?" "How many chairs and tables have we?" "Will the program interfere too much with the other program?" and isn't it our artificial school system which says what shall be done in vocational home-making rather than the social needs of the home? Haven't we been running these vocational home making courses on that basis rather than turning around the other way and working at the home and the job of a home-maker, and what a home maker has got to know in order to be successful on her

job; incorporating those things into the course and giving it to the student? Isn't that the great weakness wherein the secret of failure lies?

Miss Livingstone: It is. I think too that home-making is not the only subject in which we have failed.

Question: We have been talking in our city about the necessity of perhaps making it a compulsory subject in the high-school; I thought about that a good deal. It seems that the girls do not use it to any great extent. Now what is to be done about that?

Miss Livingstone: If a girl expects to go to any of the colleges like Vassar or Wellesley, the "Big Five," it is impossible for her to get anything in her course excepting the studies prescribed, and I think it is too bad they don't give some credit or allow some time so that a girl may have a general course in high school.

Now, I think that we as home economics workers have failed in this way. I don't like to "knock," but this is a good place to discuss this sort of thing. I think we have failed in this respect. We have been working too much along this line: We have not prepared a survey of what the interests of a girl may be to-day and applied that work, or adapted the work to the girl's interest. We have been thinking ahead; of what she may do in ten years, instead of her interests today. Now, I believe that for the general education of a high school girl she should have a general course in home economics that will fill her particular need, her need of today. She is interested in clothing. Every high school girl is interested in clothing; and every high school girl is interested, or should be interested in her health. She is interested in being good-looking and being attractive, and if she understands that it is necessary for her to be healthy in order to be good-looking she will be more interested in health; and in order to keep good health she must have some working knowledge of foods.

Now, I don't believe in chopping up the course into a food course, into a sewing course, and so on. I think you can dovetail the whole thing into one course. I know it can be done because I have tried it—I am trying it. If you have an elective course it can be made so interesting that they will take all the subjects offered, but I do believe that every high school girl should have that general course in home economics for general education.

Mr. Carl T. Cotter: How would you proceed to make the survey of which you speak for making courses..

Miss Livingstone: I would go into the communities represented by the groups and find out the interests and experiences of those communities, and in doing that one could decide on what equipment should be used. You would not want to install equipment consisting of vacuum cleaners, electric washers, and various other up-to-date

household appliances for the instruction of groups living in one or two rooms. If we had the room it would be advisable to reproduce the equipment in the home. I would like to raise the standard to show them what they can do with these modern appliances; but on the whole I would survey the community in that way to decide on the equipment. I would not give the same course in an orthodox Jewish community as I would give in a Slavish community; nor would I give the same course to any of those communities as I would give to a community composed of wealthy people who had all the work done by servants.

PROBLEMS OF THE PART-TIME SCHOOL

PROFESSOR ARTHUR PAYNE,
UNIVERSITY OF MINNESOTA

I find myself somewhat embarrassed just at this present time by the fact that I have two speeches to give you, one that I prepared but shall not give you because it was prepared for an entirely different group of people. I presumed we were going to have a lot of men here who were devoting their time in life to vocational education; instead of that I find myself facing a group largely composed of women who are for the most part art teachers, so instead of giving you the speech I prepared I am going to give you one which I have just prepared while listening to the previous speakers.

The first idea that I would like to give to this particular group of people is this: that there is a decided evolution—some people call it revolution—taking place in the field of education. The school of today are no longer what they were ten years ago, and even five years ago. If you will go back over your history of education you will see the varying aims of education. It was moral discipline at one time; then it was spiritual discipline; and then mental discipline; and we haven't gotten out of that field yet. The objectives, the aim and purpose of our present form of education generally all over the country are the same as the 11th Century, that is, the training of the mind, the training of the intellect, intellectual discipline.

Now we are getting to a different point of view, and that is education as a social process. Don't you know, people, that the greatest weakness that we educators have today in our whole scheme of education is the compulsory part of it? We say to the boys and girls "You come to school or you go to jail." Now, that is placing it rather tersely, rather crudely, but isn't it a fact? Compulsory education! And we find some who want the age limit to be raised because so many of them are leaving the schools; and it looks bad, you know—it looks bad for the school man the minute they get away from him out they go. They hate it; they don't want it; and their parents may not see the need for it.

Now this is staright strong talk, and I presume some of you will

object to it, but isn't it true? I myself am opposed to any kind of education that is compulsory. "You have got to come to school or go to jail." And that is just what we are doing. We have truancy officers and all that sort of thing.

Education is the thing which the student who is to be educated should be eager for, should be anxious for, and it is simply because we have gotten away from the real notion of education which was in the minds of the great educators in the past and the great educators of the present day, and that is education for Democracy. If we should try to do this thing in any other line of work but education would they permit it in this country? In a democracy with a democratic form of education, a democratic form of government? I don't think they would.

Now, I am to talk about part-time schools; I was to talk on the problems of the part-time school; I was going to presume that you good people knew all about part-time schools; knew the different kinds; and I was going to talk to you about some problems which come up, and the methods whereby they might be solved. I am coming to that part of it, but when you talk about part-time schools I think first of all we better clear away the ground just a little bit so that you won't get confused between other kinds of schools. For instance, we must not get confused with the vestibule school. The vestibule school is a school which is set up between the employment office in a big industry and the production floor; it is the school through which the people who are employed must pass to be trained and prepared for the job which they are going to do, because when they get out on the job they must be trained; green hands are an interference with production; and to-day the great big thing is to increase production.

We must not get the part-time school confused with the training department, which is a very interesting development of our modern industrial organizations. The training department is a part of the scheme of scientific management which has made possible a great increase in our standard of living. It was scientific management that made possible the automobile, and a lot of other things; it has raised our standard of living; and so it is here, and it is going to stay. Now manufacturers are beginning to look upon the human equation—the people—and train them, prepare them scientifically for the job which they are to do. Now, that is the training department.

We must not confuse part-time schools with the corporation school; and by the way, as educators, there is something that we need to be very very much afraid of. I have been in towns where the corporation schools simply were a wet blanket all over the regular school system—in the large new industrial towns—where the public schools were not furnishing them the kind of people they wanted, so they started schools of their own in the plant under their own control, on

company time, and said, "We will train our people ourselves." These people paid the biggest part of the school taxes and were fighting to keep the taxes down all the time. They were paying taxes twice for education; one for public schools education which didn't help them much; and once for the education which they needed and got in the factory. They are the greatest menace to the public school system that I know of in this country today; and they are growing.

Then we must not confuse it with the welfare educational schemes such as the have in the Wannamaker store, where the employees are instructed in various arts; that is merely a welfare educational proposition.

We must not confuse it with those things.

The part-time proposition is a straight Smith-Hughes proposition; and I firmly believe that this part-time school is the most vital and most significant thing that we have in our educational system today. Between twenty and twenty-four States have part-time laws; I think twenty have compulsory part-time laws; but roughly speaking I think about twenty-five States in the Union in the last three years have passed part-time laws.

Just what does that mean in education; and then what does it mean in vocational education; what does it mean to you art people? I think this association should have a definite program, set an objective, and then work towards it. Some of them are involved in this part-time school. What relation is the Art Department going to have to part-time school. What relation is the Art Department going to have to part-time education? I have established a good many part-time schools, and the question has always come up, "What about the Art?" I have said, "Here is what I would like to see." The answer comes, "That isn't the way we would do it." You cannot take the old things; you cannot take the new wine and put it in old bottles.

But there are three types of part-time schools, and if we are to discuss intelligently the different phases of the work we should keep them in mind. The first is the trade preparatory type. A good illustration of that is the school I recently visited in Cincinnati where they have the Western Union messenger boys and are training them for a trade. But I do not see myself how under the present minimum of four hours per week you can train a boy in a trade, and that is the reason why I am not interested in that trade preparatory type.

Then we have the trade extension type, in which the people are already employed, and they are supposed to have in these part-time classes subject matter and courses of study in matter that relates to the trade which the students are pursuing—to extend their trade knowledge.

Then there is the general continuation type, which is interpreted

in most places as being a continuation of their general academic occupation.

I am particularly interested in the second one, the trade extension, because I don't see how you can prepare them for a trade and accomplish very much; you might profitably prepare them for entrance to a trade, but you cannot do much toward training them on a basis of four hours a week, and that is what the law sets up as a minimum.

I am not particularly interested in the general continuation type because all of these pupils must be fourteen years of age, and when a boy has escaped from school—and that is what it is, we take all the power of the law and bring him back, drag him back and give him the same old stuff over again. It seems to me altogether too bad that we should *make* them; it might be good for them but I don't think we would like it.

I have often heard teachers—that wonderful body of people who know so much, you know, and gets to be so valuable to the community that the community pays them such large salaries, and so on—I have heard them complain when they have to attend teachers' institutes, teachers' meetings, and committee meetings, that they don't like to get dragged back onto the old job.

It is stated in the law for these part-time schools that the aim is "the promotion of the civic and vocational intelligence." Now, if you will analyze that you will find you can give almost anything under the sun and it will come within that requirement. In one of the schools under the part-time law I found they had classes in Latin. I think it is a perfectly ridiculous thing because you cannot teach latin on the bases of seventy-five minutes a week any more than you can teach anything else at that rate.

Now, some of the reasons for this rapid growth of the part-time school legislation. One of them is the large number of children leaving school at an early age without adequate preparation or training, either for citizenship or vocational efficiency.

Four years ago the Bureau of Education put out figures showing that approximately 70 per cent of all the boys in the country left school before the end of the seventh grade. Now, that is a very serious condition when you think of education being free, in a democracy. It means that we have failed to "sell" education to the boys and to their parents, in this country. We teachers have failed to do that.

I have talked to teachers on the subject of adequate salaries many times, and I tell them this: The best way that I know of to get more money is to be worth more. We are not paid our salaries, small as they are—and college professors are inclined also in anything you want to say about small salaries—for being teachers, but we are paid our salaries for being good teachers and giving the public what it

wants, and giving society what it needs in the line of education, and I think we have failed in a good many respects in that. But this evolution, this process which is going on within the whole body of education is one of the best things that ever happened. I am firmly convinced of that. Why, it is going to happen that we are going to have things taught, and we are going to think a certain way in public schools so that you will have people leaving their office jobs to teach, and you know most of you don't do that nowadays.

Now, the next reason is the breaking up of the old trades into highly specialized occupations requiring only short training periods. The old trade school is dying out, I believe, and largely due to our experience in training workers during the war. We found out it didn't require any four-year course to teach people now to make munitions or machine small castings. We used to have the all-day union trade school where we had a four-year course to teach a boy how to be an electrician or a machinist. Now the boys simply won't go into technical schools; they don't want to go into the trades. So the breaking up of the old trade schools is really remarkable; we have the breaking up to the old trades into highly specialized occupations.

I had the privilege during the war of organizing a school which trained over three thousand women to go into a rifle plant. We increased the production of that plant from five thousand completed rifles per day—per day, mind you—to 6,500 rifles per day, by the introduction of these women; and a good many of them were school teachers, and I am glad to tell you that many of those school teachers were getting from seven to fifteen dollars per day, for eight hours. And a good many of them have gone back to teaching. I wonder why! These training periods did not last over three days, some of them; the longest of all being three weeks.

I spent my boyhood in what is probably the most famous gun-making town in England, Birmingham. We used to regard the gunsmith as a wonderful craftsman. A man who made guns was something; he was an aristocrat. Now we take school teachers and teach them how to make rifles in three days; and they made mighty good ones, as the German found out.

We have another reason in the increased number of just plain jobs caused by the breaking up of the highly trained skill-requiring work into semi-automatic occupations. The big majority of occupations in industry today are these semi-automatic jobs where the worker is nothing more or less than an extension of the machine. I was talking with an efficiency engineer last week. I spent all that day in a very large tractor plant, and I said to him, "Well, why don't you let these people go? You could get a jig to do that kind of work." He said, "I know it, but I haven't had the time." So it is just a question of time before the engineer is going to get around to design a jig, a

nature, or an appliance to displace this man. It shows what a small part of human intelligence and creative faculty applies in the jobs these men hold. I made a statement to a group of manufacturers—the American Association of Engineers—last Tuesday evening in Chicago, and I said something like this: “Now, gentlemen, isn’t it a fact that under our present industrial organization we are coming to the point rapidly where a Moron is the best type of workers that you want? They will stay there and do that job without thinking; they won’t be too ambitious; they won’t want to get along too fast; they won’t get too fussy about it.”

You know the average job today doesn’t require any creative ability; the workers don’t have to think. I wouldn’t want to do it; neither would you. And that is one of the causes for the great increase in labor turn-over with which we are afflicted in our labor problem today.

And so another cause for increased part-time school legislation is the almost total lack of education or initiative in these jobs. They don’t want you to think. The thought has been eliminated. Now, I am talking about the vast majority of production jobs. Yesterday afternoon I went through the Ford plant. I was very much interested in it. I have been through a good many plants. My opinion is that any man that thinks on that job is apt to get hurt and stop production. He has got to do just what he is told to do, and as one man says, if you will permit me to quote him, “and do it damned quick.” [Do as you are told and do it quickly. That is all they want of you.

There is still another reason, and that is the necessity for more thorough Americanization and education of all the children of all the people, a more thorough Americanization and education of these people.

Then I want to stress this point, too; it is a thing I feel very strongly. The part-time school is a school for the children of the poor people. I have made a statement a good many times and all sorts of people have jumped onto my back for saying it, but I still continue to say it, and that is this: that our present form of education in this country is pre-eminently an aristocratic one. It is one for the children of the rich people, only the children of the rich people can go through and finish our system of education. Finish it, I say; the rest of them start and stop. They escape just as soon as they can; and they have not finished anything; they just simply quit; and this part-time school is a social-process school; it is a school for the children of the poor people. They are the people that I am working for; there is where my interests lie all the way through. Now, this type of school gives a great opportunity for several phases of work. First of all it is going to be pre-eminently the big field in vocational guidance. There is a thing we have been talking about and talking about for years and years. I have been talking about vocational guidance myself, and

I wonder just how much we have done. How much have we really accomplished? We have accomplished very, very little. I know of only one city in this country where they have a real scientific, analytical scheme of vocational guidance.

Vocational guidance is something more than casual book-reading; it is something more than casual guidance by delightfully charming young ladies who are giving vocational mis-information; and it is mis-information because they haven't anything to give since they haven't worked in that industry, whatever it may be, therefore how can they be concerned with it.

Then it is going to give us a splendid opportunity for employment supervision because under the law these children are still under the control of the public schools. There is the fine thing about it, that we can follow them into industry. Now while I am glad of that I still persist in this obsession that I have, and that is we must not enforce upon those children the same things that they have been getting in the grammar school. The elementary school teachers have had their chance, they have escaped; they have gotten away; they have done their best or worst; just whichever side of the picture you choose to look upon. Now then we have got to give these people some real form of education; something that is real; something that is vital; something that is really worth-while. It isn't what I think you ought to have for the ultimate good of your soul, but here "What do you want to know? What can I do to help you in your job? What can I do to help you get more money? To be more efficient, to be happier; to get a better job? What can I do for you?" That is the attitude with which to go at this problem, and it is the only way we are going to get anywhere.

I was talking to a group of people at the University the other day and one of them said, "Mr. Payne, when you get that you know what you will have when you get that kind of think into your education for part-time schools? Wouldn't that be a mighty good thing to have in our other types of schools and classes, including elementary schools?" I never thought of that before, and I wondered if it would not be a good thing.

What are we going to do for the future citizens? We have classes at the University where we study part-time schools, and the kind of students, the kind of student that you will get in the part-time school; and he is the boy that has been forced out, expelled—I don't mean by expelled what you mean. I mean that he has been sent out of the public school because of his lack of interest; he is a lost customer in the store of education. He has been held there by the power of the law, and finally the law has let him go and he has gone gladly. Now what are you going to do? What kind of student is it that you get? You are going to get all kinds, physically, psychologically, economic-

ally, sociologically; what is the attitude of the employer? The manufacturing employer; the business employer? How are you going to sell the idea to them? Are you going to club them into submission again and say, "We don't care what you want; we, the teachers, tell you what we are going to do?" No. First of all we have got to sell the idea, because the manufacturers can block any legislation; and after you get it started if it isn't efficient, if it isn't effective they will ask for a repeal of the law; and I won't blame them, not one bit, for they are perfectly right in doing that unless we can give them something that is effective and is efficient.

What about the unions? That is always a question that comes up. I am always glad to say that the Unions, especially the American Federation of Labor, are strongly back of anything that goes towards vocational education in the public schools. If it hadn't been for the support of the American Federation of Labor we certainly wouldn't have passed the Smith-Hughes Law. If you will read the proceedings of the annual conventions of the American Federation of Labor you will always find, for the past five years or more, that they have passed resolutions favoring industrial education in the hands of the public school. They are not at all in favor of the corporation schools—not at all—in the hands of the employers, and you can see the reason why.

Then where are you going to hold these classes? Now there are two places. One is in the public schools.

I worked for two years in one state and we organized part-time schools and classes where every class was held in the public school, and I thought it was the proper thing to do then, but that was two years ago, and in the field of education and vocational education we are moving very fast. So I have reversed my opinion. I am in favor of holding them right in the factories, right in the plants. There have been a good many reasons which have caused me to change my mind but I really feel that the plant is the place in which to hold those classes. The teachers can then go out on the job and have an understanding of the problems with which their students are confronted, and accomplish much more towards helping them solve their problems. What can you do in the plant to make them more efficient workers and more efficient citizens?

By this way, let me digress one moment. We hear a great deal about education for democracy. I have heard fine public orators get up and talk on "education for citizenship, that is the target that you have got to aim at; education for citizenship." I wonder if they knew what they meant by that? Did you go back and do anything different in your classes because of what any one said about education for democracy or education for citizenship? I want to say that vocational education is the finest kind of education for citizenship, because of the fact that the first fundamental of good citizenship is the ability to

earn an adequate livelihood. You cannot talk art, or music or literature or religion or anything else approaching good citizenship to a man when he cannot earn an adequate livelihood. We have first of all to place these people in the position where they can do that.

So I would have these schools in the factories. They are more successful there; they are more closely related to the actual needs. Then of course there is the element of lack of truancy because they are in the factory and you have control of them.

Then there is another type; you get the general type, you get the composite group of people; some of them may come from the office, some from the foundry, from the machine-shop, proving-room, and so on. How are you going to arrange a course of study for those people who are working on different jobs? There is one plan which I favor and which I am establishing in Minnesota at the present time: We are taking all the boys who manifest an interest in electricity and fill up a little plant and add to it as we have the room.

And then what about the studies to be taught? For the boys on one hand, and for girls on the other? I asked a group of teachers this question: What studies would you give in a four-hour a week program? The art teacher said two hours; the cooking teacher said that they must have three hours; and the English teacher said she would be satisfied with four and a half; but you know those things are wholly impossible. It is not significant what you give them, but it is important that you teach them how to think.

Under the law to promote civic and vocational intelligence you know you can give them most everything, but I don't see any use myself in trying to give them any shop work, because they already have had that. Why duplicate it in the class room; and then why take up that four hours in day literary subjects? Why not give them some history; I don't mean the kind of history of which you probably think. I mean industrial history. That is what is needed. If it were in a steel plant I would give them the history of the steel industry. If you want to read a romance, one of the most interesting and romantic things that you could possibly get hold of, read the history of the steel industry. If it were in a textile mill I would give them the history of the textile industry. Get them interested; tied right up. Give them the history of the American people in industry. Start back with Samuel Slater, who brought over, (in spite of the embargo England placed on the colonies that no machinery should be sent over here) all of the plans for the machinery in his head and then constructed them over here. Samuel Slater was the father of American industry.

Tell them who was primarily responsible for the tremendous increase in civilization. A man by the name of Dud Dudley—I wonder how many of you have heard of him. Some of you have, no doubt,

because you have been in my classes. Dud Dudley was the first man who melted iron so it would run, thereby making possibly modern machinery. There are many things they should know. I would like to have them know industrial hygiene and personal hygiene; two kinds of hygiene; personal and industrial. What about certain things they should know to be more efficient as workers? They should know that when they are ill they stop production, production is decreased by just that much; and then they also lose their day's pay. They should be taught the benefits from proper digestion and elimination; and that can be taught in a simple form.

As to industrial dangers, I would teach them "safety first." That movement has been given some prominence, of course, but it should be continued in these classes.

I will close with this one point: Here is the opportunity for you grade teachers, for academy teachers and for all manner of teachers to get into a better line of work, a more interesting line, a more vital line of work, where you have more freedom; and lastly where you will be able to do your part in helping to make education a real social factor that suits the needs of society.

HOUSEHOLD ARTS ROUND TABLE

HARRIET M. PARKES, CHAIRMAN

ASSISTANT DIRECTOR OF MANUAL TRAINING AND
INDUSTRIAL EDUCATION,
GRAND RAPIDS, MICHIGAN

THE COMMUNITY KITCHEN

MRS. NELLIE F. KINGSLEY,
EVANSTON, ILLINOIS

It is a great pleasure to me meet with you because you are all scientific people who have done your work from a scientific standpoint, and I am a mere layman of the humblest possible kind. We have done some work in Evanston. You have given us the compliment of asking me to talk to you about it, and I come to you with pleasure, hoping that you will take it from the standpoint I offer it.

The earliest labor complications: The first great strike and walk-out and the establishment of the first Community Kitchen are all recorded in Exodus as having taken place in 1491 B. C. It is also reverently recorded that the Lord himself planned the menu—quail and manna—and delivered breakfast and luncheon as well as dinner, at the tent doors of the Israelites, solving by this method the pressing problem of feeding the people satisfactorily.

Since the same situation exists today, following the nation-wide walkout of domestic helpers which the government assures us shows no diminution in volume, why not apply this same remedy to those left behind and establish a new series of Community Kitchens which in a more humble fashion may solve a similar problem?

The threat of the disappearance of the American home through the flight of hundreds of families from homes to cafes, restaurants and family hotels, either because no help could be secured, or by the distressing alternative of worn and overburdened young mothers and home makers, breaking under their heavy burdens, was realized by the organizers of the Evanston Community Kitchen. They determined to do all in their power locally to avert such disasters. Therefore, a little over a year ago they went east to study what had been accomplished along these lines in other communities. The results were frankly discouraging—failures having followed nearly every attempt—but bolstered by their belief in the idea, and its success in other countries, and recalling that the flying machine was long in being perfected, but each failure marked an advance, they entered upon their attempted solution, humbly but courageously. So far the results have more than fulfilled their hopes.

Backed by the Evanston Woman's Club, which allowed the use of its kitchen at a nominal rent for the initial three months, they began sales over the counter, on a cash and carry basis, of the best of cook foods. Customers thronged the modest room, and soon put this part of the work on a firm financial footing.

The organizers were then ready to consider the establishment of a hot delivered dinner service to give help in "helpless" homes and so keep the families around their own tables. For months they had been at work trying to find a satisfactory container in which to deliver the dinners—this having been always the greatest obstacle to success.

In an exciting contest, many containers were offered for tests. The judges were the interested organizers and an expert engineer for the Commonwealth Edison Company; the audience, officials from the various companies whose containers were under examination. Each container was filled with boiling water, sealed, locked and left for five and one-half hours, then opened and tested for heat retention. All the containers stood high in thermal efficiency, but were unattractive in design, made of metal which was insanitary, and even dangerous in some cases, and not intended for table use. The organizers wanted a sanitary, insulated, glass-lined, metal dish, attractive in form, of high thermal value and designed for table use, thus avoiding the transfer of food and the use of extra dishes which must be washed. One man caught this idea and after weeks and months of effort in which everyone joined, a container was produced.

In these containers large dinners have been served at various functions. Luncheons have been sent to Chicago which were served steaming hot three or four hours after they were cooked. The mail aviator who flies between Chicago and Cleveland carried a hot luncheon in one of these thermal containers which he ate above the clouds, and many picnickers have been made happy with a hot meal prepared hours ahead and served piping hot by lake or roadside.

Every night trucks filled with cheerful looking blue containers hum about town delivering savory hot dinners to from seventy to one hundred and fifty patrons who gratefully receive "what the gods provide," and send in their checks with heart warming messages of encouragement and appreciation.

These dinners are simple in construction, as the following menus will show:

WEEK DAY DINNERS

- | | |
|----------------------------|---------------------------|
| 1. Braised Tongue | 2. Soup |
| Creamed Potatoes | Roast Pork with Apple Sc. |
| Spinach with Egg and Lemon | Parsley Potatoes |
| Fruit Cup with Cake | Spanish Cream |

- | | |
|-----------------------------|----------------------------|
| 3. Roast Beef | 5. Creamed Oysters |
| Browned or Stuffed Potatoes | Spanish Rice |
| Creamed Celery | Spring Salad |
| Pumpkin Pie | Peach Short Cake |
| 4. Broiled White Fish | 6. Soup |
| Mashed Potatoes | Panned Sweat Breads |
| Cucumber Salad | Macaroni and Tomato |
| Fig Pudding and Sauce | Fruit Salad—Washington Pie |

SUNDAY DINNERS

- | | |
|----------------------------|---------------------------|
| 1. Spring Chicken | 2. Roast Lamb |
| Caramelized Sweet Potatoes | Stuffed Potatoes |
| Creamed Cauliflower | Green Peas |
| Gelatine Salad | Cucumber and Tomato Salad |
| Charlotte Russe | Lemon Pie |

The price of the week-day dinner is eighty-five cents per person per dinner, for regular patrons, and one dollar for "casuals." Twenty-five cents for delivery is included in this price. Sunday dinners are one dollar and one dollar and twenty-five cents for the same two classes. Recently delivery charges have gone up to thirty-five cents per container. The patrons are asked to assume this and have done so willingly.

In addition, in these months of work, hundreds of pounds of nourishing foods like rice, spaghetti, baked meats, and macaroni, have crossed the sales table, while soups, croquettes, salads, roils, custards, puddings, muffins, ginger bread, pies, doughnuts and cakes have been insufficient to meet the demands from families, convalescent soldiers, church and college societies.

The quarters of a year ago are outgrown and the Kitchen is now installed in a home of its own with a power mixing machine, a power vegetable machine, a refrigerator, and a refrigerating showcase, besides the regular range, boiler, pastry ovens, deep sinks, heating ovens, and an incinerator. These are arranged in two kitchens, a packing room, office and salesroom, with a private office, four rooms for dormitory purposes, and a large store room.

As to finances, the Kitchen has been a success from the first. All bills are paid except those for the new equipment installation in the present Kitchen, and the balance in the bank will partially cover that. The volume of business is increasing daily. The universal and grave questions are the fluctuations caused by rapidly rising prices and changing food conditions, and the growing demands of labor. These are serious questions, but we believe they can be answered satisfactorily, and our courage is high as we enter upon the second year of

our experiment. No one can predict ultimate results in these "piping times of peace," but whatever they may be, we are glad we have at least tried to contribute to the solution of an ages old problem.

THE ART ELEMENT IN SEWING COURSES

HUGO B. FROELICH

DIRECTOR OF THE FAWCETT INDUSTRIAL DESIGN SCHOOL OF
NEWARK, NEW JERSEY

Any national art, any big national movement, must begin with the public school. It is there that we get the children in the emotional age. It is there that we plant the seed that must grow after they leave the school. It is there that anything that we consider of value must have its beginning. Sewing and cooking for the girls is one of the biggest assets of the public schools. They are considered by many as of even greater importance than the academic subjects. A girl when she takes charge of a home needs to know more about cooking and sewing than she needs to know about arithmetic. She may work decimals, she may work percentages, she may work bonds, she may do all that, but how often will she need those in the daily routine of affairs as compared with how often she will need to know something about cooking, sewing, handicraft and needle work? They are almost inseparable from the home maker and the one in that situation in life.

We all know how dependent man is upon the products of the kitchen, and how easily the equation of the home may be disturbed if the steak is burned or if the bread is heavy, or if the biscuits are not this or if it is not that; there is a real grouch in that home, but properly handled, smiles may be the order of the day, and it all rests with the woman, the home maker, as to the condition of that home. And in needlecraft, it is stated sometimes, "Well, in these days when you buy things that are finished and buy them so well, why should a woman know needlecraft? Why should she know how to bake bread?" I cannot see it that way. It belongs to a woman; it is her mission. There is a certain something that belongs to womankind; there are certain somethings that belong to mankind, this to the female, and this to the male.

In sewing, we like to divide it not only into the technical sewing, the bringing together of two or more pieces of cloth to form a waist, or an undergarment, or a middy, or whatever the need may be, but there should be in that problem something more than the technique, the technical excellence of the making of the garment, because in the hearts of all of us there is that hunger for beautiful things. We cannot help it; we were born that way. There is that desire for beauti-

ful things, and particularly in woman for the beauty of her garments, and she will exercise that power of selection whether she knows anything about art or not, and it is right that it should be so. Art is inherent and we cannot escape it. We are bound to use it just as we use imagination; it is born with us; we have nothing to do with it; we will make our choice, we will do our work, whether we know anything about art or not. And so in sewing there is a wonderful opportunity for art expression.

The various stitches, as you know, are simple enough, the edge stitch, the feather stitch, the seed stitch, the back stitch, the overhanded, and the various other stitches. They may be played upon again and again in the sewing of a garment.

Then what can we do in the schools with this problem of sewing and the introduction of art along with technique? It is surprising how, if the work is made simple enough, the grade teacher who teaches sewing, in our city (Newark, N. J.) it happens to be, will be able also to teach the art that goes with that sewing. We happen to have two types of schools, one called the alternate and improved Gary plan, and the other the regular school, the school in which sewing is taught one day a week for eighteen weeks, eighteen lessons, and that constitutes a semester's work. It is to be regretted with this disconnected way of teaching sewing of once a week perhaps at once to twenty-five girls, with the grade teacher in charge teaching the subject of sewing, and yet even with that handicap, it is surprising what the children can do and the ease with which they do it.

Sewing happens to begin in our city in the fifth grade. One of the problems is little bags introducing the joining of the sides and some of the simpler sketches, with a little art decoration in the C. W. C. cotton, in the form of a border at the bottom of the bag. To get across this lesson, at first sight this seems rather difficult, but after you get the problem across to the grade teacher, it is not difficult when you consider how it is done. For instance, every child takes a piece of manilla or writing paper and folds it and with scissors begins cutting. (Illustrating diagram upon blackboard.) They decide upon the width of the border, which will give them one dimension of this piece of paper. Suppose the width of the design may be two inches. That is folded on one of axes of the diameter, and with the scissors they practice cutting various shapes. Some will be fantastic, but soon they will get the idea of cutting these shapes so that the border may be used in designing. There is a great fun in cutting a number of them and then choosing, and therein lies the value of the lesson. It is not so much that we are creating—it is important, to be sure—but it is to choose, to select, to arrange.

Having made a choice it is next a matter of placing and spacing

the unit on the cloth. If they attempt to draw these shapes, they are very apt to get the form too close to the margin of the cloth. By using a piece of paper, they may change their mind as to the position of the unit, and it is that that we wish them to cultivate, this matter of choice.

These forms may lack some connecting link, but that, too, is overcome by what will be put between the two to make our border more interesting. We might use a chain stitch line directly across. When all of these uni's are finished, then comes the element of stitching. Will we use the chain stitch? That is one of the most popular employed for the outline of the work. Will we fill in the shapes or leave them open? If we fill them in, what shall it be? A seed stitch or the darning stitch; usually the stitches go vertically or horizontally. All of that makes of the design a very different proposition and yet very easy. Suppose I fill in the figure with darning stitches. I may use French knots, and the children will have to discuss that side of it. Shall we place say here a cluster of French knots, possibly five French knots, which would give an accent. We might reverse the matter and fill in the background with an all-over pattern. We may use the satin stitch; we may fill in the shape entirely. We may use the cross stitch. It gives us a wonderful variety in making the designs. It is that element we like to look for in class work, that no two of them are alike. We want the individual quality of the worker to appear in the work, so that any attempt at copying is discouraged, and in a way is not necessary because the children prefer to have their own.

It is, I think a splendid thing that every woman likes to have individual clothes. It may be undergarments; it may be a waist, whatever it is, there should be a personal touch brought in the work, and it should have that feminine delicacy. Around the neck of this garment (shows undergarment) is nothing more than a squirrel, with a connecting line and some little forms like leaves. It may be a flower, it may be a leaf, it may be a triangular shape; it may be a cluster of knots, but just a little thing of that kind is quite enough.

In the eighth grade, the students usually make their graduation gowns as a sort of diploma in sewing. The design is determined by paper cut forms which are pinned on in position, making one-half of the design. It is folded over and the opposite side made. It may be placed under the cloth and traced. The finished design may be done in wool stitching, using the Germantown wool for the outline. That results in individual expression. The garment is alike in each child's case, but the art on it makes them very different. That is true in manual training forms where every piece of work is alike, the technical part is alike, but art steps in and makes them all unlike, and so with the garments—art steps in and makes them all unlike.

An experiment was made in a layette. It was a competition, and the conditions were these, that the teacher might work with the student, the best student in the class. That student was to be selected by her fellow students, and the class was to keep watch of this layette and they were to make the important garments. They could make them in any way they liked. They might get a pattern for it. They might look at other layettes; they might discuss things a little baby would need; they could get out anything that would actually be used and be needed in the garments of an infant. Thirty schools competed, and one of the department stores offered a prize of a hundred dollars to the school that had the best layette. In other words, the fifth, sixth, seventh and eighth grades, four grades would constitute a school in making these little garments. The supervisors and myself were to keep hands off. It was to be entirely the result of the class. In these little garments, the teacher and the children showed a wonderful fund of resourcefulness. (Shows Layette.)

I think we sometimes lose sight of the wonderful possibilities of knitting and crocheting, especially among the foreign children. They have a great knowledge that they have brought over with them.

I don't think we get enough of that co-operation between the art department and the sewing department, or the manual training department. Art is the thing they are after. We cannot escape that. The work may have technical expression, it may function, it may answer the question of utility, fitness of purpose; it may meet all of those, but unless art steps in, the garment may have utility only and not stir the emotions. It is art that makes it distinguished, and which marks the character especially of the worker.

The pupils are very particular about selecting something that is useful and beautiful. They are exceedingly anxious to put the stamp of the needlecraft, of the art, of the color, of the design, in their work, and isn't that one of the splendid things to build upon? Don't we get there the key to the situation?

DISCUSSION

Question: You and so many others have said we do not have enough connection between the manual training and the art department. How can we overcome that difficulty?

Mr. Froehlich: It is one of the hardest things to overcome that I know. The solution is that there should be one person placed in charge of all of the activities. Whether that succeeds or not, that is my belief. Fortunately, I am in that unique position. I have cooking, manual training, sewing, and so forth. It is the hardest thing to get people together for a common cause. It is even so in our city. What

is art for? Art should function in everything—in the making of a chair, in making life, and in making a home. They are the places it should function. I think our art teachers ought to learn how to cook and how to sew, and may be that might help solve the question.

Question: What is the relative time of sewing and art?

Mr. Froehlich: In the fifth and sixth grade, it is one hour; in the seventh and eighth grades, it is an hour and a half, and the same in art. We have tried the problem of setting aside the time given to art, say, three lessons in the art time to be given to sewing problems, and they come at a certain time. When the sewing garments are coming along where they need the art, and the art is ready, they go into the sewing. That time connection has to be anticipated.

Question: How does it extend into the high school?

Mr. Froehlich: It there becomes a specialized study but also with that same connection. We insist that the art develops certain sewing designs, because the sewing teachers who are specialists are not always art trained, and by having this one authority that I spoke of, they do come together because here is an idea set forth, and the art people say, "Yes, we will work the art on that." The sewing say, "Yes, we will work for the technique in that." They come together in that way.

Question: Who designs the garments? The art student or pupil, or the sewing teacher?

Mr. Froehlich: Very largely a matter of commercial patterns.

Question: Why should it be so?

Mr. Froehlich: Because it is a rather advanced problem in the high schools to cut out a garment and to lay out the pattern. They do make the modifications, the lengthening or widening, and the changes that way. The teacher does give regular class demonstrations on that. How a garment which is of such a size shall be changed so as to lengthen it, and what changes must take place in the bust and in the shoulders, is given to them very definitely.

Question: Is mending carried on too?

Mr. Froehlich: Yes, socks, stockings, gloves, and the angular tear. We stress that even in high school and the girls as a rule don't like it, except the mending of silk stockings and gloves.

BUYING AND SELLING APPAREL; A BROAD FIELD FOR WOMEN

C. G. SHEFFIELD

WITH J. L. HUDSON CO., DETROIT

When I took up this line of work about ten years ago, I think the one thing that appealed most to me was that I was entering a business to please the ladies. Who can imagine a pleasanter task! I also thought how simple just to buy pretty things and sell pretty things and induce unattractively dressed women to dress attractively, and to make the attractive one more so. I soon found, however, that I had signed a hard contract. Most of the things I bought as beautiful nobody wanted, and the very ugly styles that persistent manufacturers sold me seemed to be in great demand. You see I was very inexperienced and did not realize that it is useless to argue with a woman. You must sell her what she wants and always tell her it is just her style—made for her, in fact—and send her away happy.

Seriously, though, the business of buying and selling women's apparel is very fascinating. It is a great gamble and mighty pleasant work. You are working constantly with line and color. You are in the business of buying and selling style, and there is no end of pleasure in turning out of your store the best dressed women in your community.

As I understand it, the object of this meeting is to learn something about the training which will most adequately fit women for retail store work, and I shall assume that you have in mind a training for women entering this business seriously, with a buying or executive position as their goal.

I also understand that this group is particularly interested in this subject as applied to women's clothing, known commercially as the Ready-to-Wear or Apparel business.

It seems to me that if you know in a general way how a Ready-to-Wear store is organized, where and how we get our merchandise, and what are the responsibilities of our executives, you will more clearly see the kind of training the schools can give to help women entering this work.

I will, therefore, give you first a very general and I presume it will be a rather hazy picture of this business, starting in Paris and finishing in the average store where the sale is made to the consumer. I will not attempt to go into detail at all as that would take too much time and would confuse you.

The function of a retail store is to stock and distribute such merchandise as the public demand, and in so doing to make a reasonable

profit. The two principal divisions of the average store are the group concerned with the securing of this merchandise, known as the buying and merchandising division, and the group who operate the store, who handle the vast detail concerned with the service we try to render the public.

It is the first division in which you are interested, as there are unlimited possibilities here for women to become highly specialized, successful buyers, commanding big salaries. Having now decided that you are interested in buying, which, of course, includes the exploiting and selling of the merchandise you buy, I will confine myself to the apparel departments.

There are four major factors with which we are concerned in buying women's clothes:

First—Style;

Second—Quality;

Third—Workmanship;

Fourth—Price.

I have stated these in the order of their importance and will deal first with style.

STYLE

Practically all style in women's clothing and accessories originate in Paris, that is to say, new ideas in styles come from there. This not only applies to suits, coats, dresses, etc., but is also true of millinery, shoes, jewelry, gloves, neckwear, in fact, practically all of the articles known as dress accessories. There are, of course, some original designers in America who from time to time create new styles which are accepted by the American public, but they are few in number and only partially successful. Paris has for generations been the style center of the world and has developed a peculiar style producing industry that no other nation has been able to duplicate. The war caused a considerable disorganization of this industry, and for a time the new ideas which we received from Paris were not up to their pre-war standard, but even during the war time period. American manufacturers, designers, and some few retailers made regular trips to Paris and brought back what they could find. Since the armistice, we find Paris fast recovering her lost prestige and Americans are flocking there again for new ideas.

There are in Paris a large number of dressmaking establishments that are in the business of producing style for all the world. These style creators are real geniuses. They originate style ideas, they launch new silhouettes, as we call them. They will, for instance, take the Egyptian idea and use it as the principal feature for a season.

They will decide for the long line, the short waist, the bustle effect, the harem skirt, and are responsible for all the various changes of style which you have seen in the last few years. They decide that skirts will be short or long and sleeves the same. American manufacturers, in fact, would be lost without Paris. Pick up any magazine today that features women's clothes and note the constant reference to Paris.

One reason for the position Paris has reached in the style creating business is the close co-operation between the various artist groups in France. The artists, the manufacturers of materials, the theatrical producers, the manufacturers of dress accessories, all collaborate to bring to Paris the buyers of the world who are looking for the new, the unusual, and for inspiration and a sharpening of the imagination.

They tell a story about a French manufacturer of artificial flowers which illustrates very clearly the difference between the methods of French manufacturers and American manufacturers, which in a very large degree answers the question of why the French produce so many beautiful and artistic articles and are so far ahead of our American manufacturers in the production of style merchandise. A certain millinery designer went to a manufacturer of artificial flowers and asked him to make a copy of a certain kind of rose which they were to feature at their opening. They allowed this man considerable time to make the flower, so he secured a plant, placed it in his shop and watched it grow from day to day, making his reproduction as the flower developed. Naturally when he had finished he had a copy which was so nearly perfect that anyone would have thought it real from a very short distance. I venture to say that there is not an American manufacturer who would even have thought to go about making the flower in this way, and he would have been unwilling to take the time, feeling that a rose is a rose, and nobody expects it to look real. This is a very good illustration of the way things are done in France in this particular line of work, and you can readily see why we go there constantly for new ideas. There are three groups of individuals interested in designing, manufacturing and selling wearing apparel who use the Paris market extensively:

The first and most important group consists of the individual manufacturers located in New York City who go to Paris three or four times a year to buy from the various dress making concerns, garments in their lines which they believe can be copied in a modified way and which will be accepted by the American woman. They buy anywhere from five to twenty-five garments for which they pay very big prices, bringing them back to America, and from the original produce what is known as their opening line of merchandise for the particular season concerned. Very few of these Paris models are

copied exactly but there are ideas in most of them that can be used and that will be willingly accepted by the consuming public in America.

The next important group are the representatives of big retail stores of America who go to Paris three or four times each year to buy original models for a certain type of clientele that will wear original French clothes, also for publicity and display purposes.

A group composed of what we call American Model Houses, who buy the same type of merchandise that the manufacturers buy, bringing them back to America and renting them to the smaller type manufacturers, dress makers, etc., in New York who do not go to Paris. Of course, in the opening lines, as we say in this business, there are a great many truly and typically American styles which consist principally of the simple types of tailored suits, dresses or coats which are sold in large quantities to the American public. The tailored women as we know her is typically American.

With this very hazy and general outline of the relation of Paris to the manufacturing of women's clothing, I will proceed a little more in detail in explaining the method of conducting the buying and selling of garments in America. In America, the women's wearing apparel industry is located principally in New York City. There are small groups of manufacturers in Cleveland, Chicago, St. Louis, Philadelphia and Boston, but we do not find very much style merchandise produced outside of New York. There are several thousands of manufacturers from whom we make our selections and they are divided into three general classes.

Group 1—The style creators consist principally of small dress making establishments—though some of them do grow to considerable size, being dominated by some ingenious individual who can reproduce French models satisfactorily, catching the French idea and copying it in a modified way as well as originating some few styles of their own.

Group 2—Consists of the better grade of wholesale manufacturers, who copy what is produced by Group 1, reproduce their own impressions of the Import models, making also a fine grade of typically American tailored suit for the refined type of tailored woman.

Group 3—Consists of the jobber or middleman who carries a stock of garments on hand at all times for immediate delivery. These jobbers buy their goods from small manufacturers, financing them in a great many cases, and they have on hand a considerable stock from which to select. Generally speaking, they sell a cheap type of merchandise, such as is found in basement departments and stores who cater to the cheaper trade.

There is another division to carry in mind. One group of manufacturers who make suits, another coats, a third dresses, four waists,

fifth skirts, sixth children's coats, seventh children's dresses. There are a few manufacturers who will make two of the above articles, for instance, coats and suits, or suits and dresses, or dresses and waists, but generally speaking, they confine themselves to the making of one particular line and, therefore, become specialists. It is with this organization that the buyer of wearing apparel must work.

QUALITY

The second factor, Quality, is self-eplanatory, and has to do with the quality of the materials which make up the garments. There are, of course, a wide range of qualities in most materials, and a knowledge of values is necessary in selecting merchandise.

WORKMANSHIP

The third factor is Workmanship, and has to do with the construction of the garment. There are several grades of manufacturers in this business, ranging from the very fine to the very poor. This factor is an important one as a poorly cut and poorly made article will give poor service, and in the end prove an extravagant purchase.

PRICE

The fourth factor, Price, is controlled by the three preceding factors. The newest styles that have cost much to produce the finest materials and the best workmanship will naturally make the cost high, while copies of the better models in cheap materials indifferently made, will cost less. There are really three types of stores, the cheap, the medium to good, and the final small store catering only to a wealthy clientele. Each type store buys the kind of garments demanded by their trade, and in every community there is one or more of each type.

There is not time within the scope of my subject to cover in detail the various courses of training necessary or rather desirable for a woman who anticipates entering the retail business. I will, however, in a general way, cover certain factors helping her advance more quickly than the girl without this knowledge, and also give you an idea of the kind of education we look for in selecting sales people. I am speaking, of course, from the specialized group of departments known as Read-to-Wear.

In engaging a sales person, their particular function in a department store is to sell merchandise, and it is not essential that they have actual selling experience, to qualify. Our first impression is one of personality—a well-groomed, smart-looking, energetic appearing woman would naturally receive first attention. We then are particularly interested in knowing what general business experience or schooling she may have had, and from our first talk with her form some opinion as to her selling ability.

Every store is constantly looking for new material which can be

developed and trained to fill executive positions, as we all prefer to fill vacancies by advancing our own people. We seldom, in fact, turn away a likely applicant whether we have a distinct place for her or not, as the supply does not meet the demand.

We will assume that the applicant has had no business experience or training. We hire her because of the fact that we believe we can develop her.

We now must train this individual and for that purpose, aside from the instruction she will receive from the buyer of her department, we—and when I use this pronoun, I refer to the average department store—have an educational department for this purpose.

Here the new employee is first instructed in the detail of store operation and conduct. She is given a book of rules and regulations, as many restrictions as to dress, conduct, etc., are necessary in all large establishments. She is then assigned to special classes according to the department in which she is to be placed, and these classes vary in scope according to the size of the store.

From the individual's work in these classes, we form our first impression of her ability, which will only show clearly when she is put to the actual test of selling. I might say a word here about the Educational Department.

In Boston there is a Mrs. Prince's School for Retail Training, which graduates a great many girls highly trained for retail store work. Most of these girls are trained for personnel and educational work, but also receive instruction in textiles, salesmanship, and many other special courses. This school I can very highly recommend to any young woman who has the time and can afford to take this course, as their graduates are usually very highly placed. I mention this school as the director of the Educational Department in the average store is a Prince graduate, or a woman with similar training.

As I have said before, previous experience or training is not necessary for a woman to qualify for a selling position in a retail store. However, a woman who has finished a course of business training, having perhaps specialized on certain courses, will apply her knowledge to her particular job, and surely advance faster than an inexperienced person.

Let us consider the five major duties:

1—Planning. In planning, the greatest asset is an orderly mind, ability to concentrate on and analyze the problems confronting you; any highly developed business course, or in fact, any serious study should accomplish this.

2—Selection. Here is where ART enters into the work of a buyer. A woman who has studied Art who has a trained eye for proper color combinations and graceful lines, a woman whose artistic sense has

been sharpened and developed, will in the selection of garments, have a distinct advantage over the uptrained.

3—Control and Manipulation of Merchandise Stocks. Knowledge of figures and a general business education would be helpful here, but actual experience is necessary to properly control and manipulate stocks as sensitive as wearing apparel. Here, too, the person with an analytical mind will do the best job.

4—Education of Assistants and of Selling Organization. The individual who has had a training in the fundamentals of salesmanship will find that training valueable in instructing her sales people and also in selling them the merchandise she buys. There are many courses and salesmanship—some good and some bad—and many books written on this subject. Personality plays a strong part in teaching and developing understudies, and a girl who understands something of teaching should build up a strong organization around her. A knowledge of textiles will also be a distinct help. I believe there are many schools that have very complete textile courses in cotton, wool and silk. This training is also very valuable in the selection of merchandise, particularly when you are buying with price the feature, and when the construction and quality of fabric is of great importance.

5—Reports. Most reports required by the executive offices of a store are submitted on forms and require no special training.

I am very often amused at the ridiculous conception so many people have regarding the qualifications of a Buyer or Assistant Buyer in a retail store. I have had no less than a dozen women apply to me this year for a buying position in our store who have no idea of what this work requires. They think because they have bought clothes over a period of years, they can step into a retail store and select merchandise which will sell rapidly, and that is all there is to it. They have no idea of the complex organization behind the particular dress or suit they may buy, and cannot see the amount of work involved in securing same and selling it.

The average buyer or department manager is a person who has started at the bottom of the ladder as a young girl and progressed with the growth of the store, sometimes taking as long as five, six or seven years to qualify as an executive, learning the business thoroughly as they go along and showing a sufficient amount of good taste which is a very necessary element in a good buyer. However, I have seen women come into a retail store without any experience whatsoever and make good as a buyer in a very short time, owing to their keen common sense judgment and natural ability in the selection of styles, but this is exceptional to a very general rule.

In most of the colleges today there are business courses with special classes covering the organization and administration of a retail

store, and they graduate some very able scholars who, with a year or two of actual store experience, qualify for executive positions. That we need more trained women in this work there is no doubt, and from this sketchy address, I hope you who have the immense work of teaching in your hands will develop further courses of study that will result in giving us more intelligent and trained people to work with.

Editor's Note:—Following the above speaker Miss French made a strong plea for the members present to get behind the Fess Bill, No. 12073, then pending in Congress, by urging their Representatives and Senators to support it.

BASIC PRINCIPLES UNDERLYING COURSES OF STUDY IN HOME ECONOMICS

STUART A. COURTISS,

DIRECTOR OF EDUCATIONAL RESEARCH, DETROIT

I am going to try to tell you something about the basic principles which underlie a course of study in Home Economics, as those basic principles are revealed by measurement work in other studies.

Education is one thing--not many. Educationally, Household laws must follow the same laws, the same fundamental basic laws as other subjects, and wherever those laws have become outlined through intensive study in one subject, they will apply to the other study.

What I would like to do for you this afternoon is to sketch very briefly a few of the outstanding features which have been mentioned in the other subjects and ask you to make the application to your own.

I will begin with the statement that measurement has proved very conclusively a fact which we have known all the way through the ages and to which we paid absolutely no attention, that the individual differences of children is a greater factor than any other factor. [We have arranged our courses of study in such a way so as to anticipate those individual differences that our efforts in other directions are largely arranged.

Consequently, if you will take this drawing (shows Chart) which is the artist's way of representing the fact which I want to bring to your attention, you have the basic principal elements which underlie any course of study. The artist has represented the Road of Life. Up at the one end you have the one child in the thousand who is born with the mental equipment which enables him to do without training that which many of us cannot do without long years of training. Next you have the children of wealth, and so on down the line, until at the

other end you get the children who come into the world handicapped by nature, who learn with great difficulty, and the public schools gather all of these children and give them to us to train, and unless our courses of study are based upon their ability and differences of ability, unless we recognize that in the way we handle our work, our work cannot be successful.

* * * * *

I have made a few measurements in Household Arts. I don't want to quote them to you because the tests have not reached the place where the results would be reliable. I would rather get them from other places. Take a sample in spelling. Buckingham finds if we take the word "only," that it was spelled correctly by 65 per cent of the children in the third grade. In the fourth grade, that percentage rose 10 per cent.

Here is a similar curve for another word. If you will follow this through, you will find case after case that only about one-third of the children who cannot spell a word at the beginning of a term can spell it at the end of the term. If we study the efficiency of the elementary school from this point of view, we will find that they are all taught in such a way that the efficiency of teaching is very low.

In the case of arithmetic, if we collect scores from 5,000 eighth grade children and 5,000 fourth grade children from all parts of the country, we will get this distribution, about five per cent of the eighth grade children can work examples of a certain type so well that they can solve 20 of them in eight minutes, while one per cent have so little ability that they can do only four of them in eight minutes. If you measure the fourth and eighth grades together, you will find the average yearly progress is about a problem and a half, and you will find this class is practically an integral class because it has got children of 12-year ability. If you compare the children in this grade and match them child for child, you will find we can transfer from one grade to the other, without changing the score of either group in the slightest, about 40 per cent of the children. There the efficiency of teaching works out something like 15 or 20 per cent. This is not a dark picture to me; it is an encouraging picture. It is an encouraging picture to me because until we had some means of determining what was going on, we were really in the dark. It is through results of this kind we must proceed. If we try to work on such complex material as we must work with, without a knowledge of the effect on the material, we cannot hope to succeed. The results do not make the condition. They simply reveal it. You ought to see in these results and in your classes when you begin to measure, merely an opportunity. You will see what would happen if in a school system you would take hold of the situation and bring all the children to the condition in which

some of the children are. The problem, as one speaker put it, is not to improve bad schools, but improve our good schools, because we are giving better and more efficient instruction than has ever been given before in the world's history. All that the measurements prove is that we have not been able to solve this tremendous problem, which confronts us without the knowledge of the actual factors involved.

So we are beginning to get hold of the factors, and we are beginning to find out what are the essential elements of success and are beginning to control those and are able to make courses of study which will really work out better than those we have today. I hope you will not feel I am one of those who believe the public schools are failures. This simply means we have a splendid opportunity, an opportunity such as has never come to any field of work before, because we are dealing with one of the most precious products of human effort. If we don't make our work efficient we are bound to make wrong our whole civilization.

You may say that this does not apply to your subject. The answer must be this, that just so far as we have been able to carry our studies, the more complex the subject, the less efficiently it is taught. It is easier to teach handwriting than it is addition; it is easier to teach addition than it is English composition, and with your subjects as complex as they are, it is extremely probable—I might say absolutely certain—similar results will be obtained when we have any means of determining with exactness the effect of the efforts you are making.

The point I am trying to make is this: You know and I know that children come into the world with different abilities. In our ordinary courses of study, we do not make provision for the difference. We provide uniform training. As a result, we get some children who get more training than they need. At the other extreme, we get some children who receive so little training in comparison with the training needed that the training received is worthless, so that a large part of our effort is waste.

Take, for instance, in this case (shows Chart). Here is a record of a girl 12 years old in 7-B grade in a Michigan school. This 12-year old girl has the average child ability. It is a waste of time for her to spend further effort in developing these purely mechanical skills, because the result would be worthless to her.

Here is the record of the class of which she is a part. If she stayed in that class, she would be sure to receive additional training which she does not need. The class needs work of that type; the girl does not.

Look at this case (shows Chart); the class is here (indicating high average); the girl is here (indicating a low average). She tried seven examples and got none right. If the work given was of value to that class, she is foredoomed to failure.

An English teacher selected a number of examples of English composition and submitted them to school teachers and college entrance boards, and various people who had to mark children's papers, and he asked them to select out of this group of composition ranging from very poor to very good the composition to represent the very lowest one they could possibly accept as the passing mark in the ninth grade. When they came to mark the composition on that scale, they found the teacher's standards on the scale were 92. The children who came from the eighth grade made actually about an average age of 60 to 66, and the average growth produced by a year's growth is about five points. In other words, the separation between these is about four years' growth. The teacher was setting standards about four years beyond anything which the children could possibly achieve.

We have had presented here this afternoon a number of examples of work and design, and as I saw those, the question arose in my mind, how do we know when we present a design or situation to a child, that it is within its reach. If the course is designed by a master in his particular line, is he not sure to set the standards way beyond the children, which is the way the people have done here? It is a situation which occurs over and over again, and not until the separate elements of a course of study have been based on their relationship of children's ability, not until we have some means of determining the kind of work to take up, can we possibly hope to have that work succeed.

In other words, what I am saying is, we must take the children of different ability, and we must give to this child the kind of training which he needs. If he is very able, he may need but very little training. If he is very much handicapped, he may need a very great deal of training. In any event, the task as it goes to the child must be so adjusted that there is a possibility of success, that he may work it out and gain from it the minute he begins to work.

If you ask me how a teacher of forty children is going to make the measurement of the ability of each child to pass tests, I have a very easy answer. It simply cannot be done by the teacher, but that doesn't mean there is not a way to do. If we turn to life itself, we can find plenty of cases where efficient learning takes place. Take the one brought out by the picture on the screen. Here is a boy just passing out of a shop after he purchased a rifle. He started to get that rifle three or four months before. A friend of his had purchased a rifle and he wanted one too. He asked his father, and his father asked the mother, and the mother said, no, a boy in the city didn't need a rifle, it wasn't the proper thing for him to have it. In the end, the grandfather backed the boy, and the father, too, remembered when he had a rifle and rather enjoyed it, and he studied the thing with the boy, and he said. "I can't give it to you, but if you have determination

enough to go ahead and earn the money, I will give my consent." The boy stuck to it and while he was earning he did some learning. He wrote to all the firms that were represented in the city and before the time came when he had the money, he knew the name of every rifle in the market, the price of ammunition, how far it would shoot, all the fine points and objections to this one and the other one. He had learned a vast amount of detail. What is more, the very minute he got the rifle, he went over to a soldier friend of his who lived in the neighborhood, who had just come from France, and who was a hero in the boy's eyes, and he begged that man to come out and drill him in the use of the rifle.

Wouldn't it be fine if all the students in the Household Arts would come to us and pester us about the work in that degree? But you say they couldn't select themselves what they should have; they could not tell what line of work they should follow. There has to be some organization, some planning, on the part of the teacher if we are going to have any direct course. Possibly that is true, but it is not, from my point of view.

Take, for instance, in this case, all over the country are boys who have learned to operate wireless stations, and if you study these instruments with which they are working, you will find they are exceedingly complex, much more complex than the apparatus with which you work in Domestic Science or Domestic Art. When this boy gets one of these machines and sits down to work at it, how does he know where he ought to begin? How does he know he will come out at the end with the proper kind of training and knowledge? If you will study a dozen boys, you will find each one operates the same way. He selects out the point which is the best point for him to attack and as he works it through he learns the meaning of each separate phase as it presents itself to him. Psychologists assure us there is no other way to learn effectively. If we want to have children learn in the very best way, we have got to plan our courses of study in such a fashion that the individual child may have the opportunity to select for himself the thing that he wants to do, and as he works with it and learns his difficulties, the teaching that goes on must not be instruction from the expert to the child; it must be service to the child; it must be on the same basis as that which we had in the preceding slide, where the boy went to the soldier and asked the soldier to help him. If the child has a project and he is working on it, and it is his project and it seems worth while to him, he is the one who is competent to say where the instructor must help.

I do not want you to think for a minute that this is merely a matter of efficiency in the teaching process. The significance of it is far deeper than that. What is the lesson which has come out of the war more than any other? We have been told it was a conflict be-

tween two different forms of government. I wonder what autocracy means to you! To me it means irresponsible authority, while democracy stands for responsible authority. In autocracy, we have one person who rules by divine right. Under him you have a group whose powers are subject to the person over it. Under him you have a class with restricted powers but not as restricted as this class. The only thing that is required of this class is that they obey. There are the people who do all the thinking, who issue the orders and the people at the top are not responsible for the exercise of their power or for their thinking.

In our kind of government, we have got a different thing. We have a group of classes handed together for a common purpose. These classes select out of the group someone whom they deem competent and they delegate from their power to him. In this, this fellow who received the delegated power may be just as powerful as that one, but he has to answer back to the people; he is responsible.

Put it in another way. This is constitutional government. This other is not. This other can be changed according to the will of the person who is in control of the game. The rules are changed at sight. Treaties are scraps of paper to be changed at will. In this case, the groups get together and say, "We will play according to certain rules. We realize before we start that just as soon as we try to achieve any single thing perhaps we are going to have complications and conflicts, but before they occur, we will agree to certain rules, and having agreed, we will further agree that we will not change those rules except in a rational way." Constitutional government means that individuals must have certain things. What are the things you are going to get. Is the training you give an individual to fit him into this class the same kind you give him to fit him into this class? I think not.

I have tried to list them in this way so that we can compare them. The thing we want for autocracy, in the lower case, is absolute, unquestioned obedience. Another thing they must have is a high degree of technical skill; the training they receive in a school must be easy to handle after they receive it.

In other words, I remember a professor telling of the small number of words he could get through the recitation with. When the class came in, he would signal "sit down," and the class sat down. The first boy recited the lesson for the day. If it was right, he had a signal, and if it was not, he had a signal, and so on for the next. I think his record was four words for an hour's recitation. His usual number ran about eleven or twelve words. Would you want American boys brought out under that kind of training? Would that fit them to live in a democracy and play their part? I think not. The real problem, as most of us see it, is to get the proper balance between the development of the individual and the control of that individual in such

a fashion that he may not interfere with the development of other individuals.

Where does that come in except as we get the individual so desirous of giving service to the group, and the opportunities to render service, that his life is devoted to the work for the common good. We have got to develop personality, and individuality to the utmost. We have got to keep that uppermost in mind, but if we are to control that individuality, we must also develop the idea of service, and since ideals control the world, the most important thing that any teacher can do in the selection of subject matter is to select it from that point of view. For Household Art, what has been achieved up to this time? What are the deficiencies of its achievement? What opportunities are there for the members in your class to contribute to the progress of the race? What may be done? What has been done? Every utensil they use in any way represents a contribution of the past. Are we teaching it from that point of view? Are we carrying forward the relation of the individual to the progress of the group? We cannot do that except we get these other things in. We cannot say, "You have got to have these utensils of service whether or no." We must have self-direction. Who studies the lessons in your class? The child or the teacher? Who marks the lessons? The child or the teacher? When a boy wants to make a kite, he knows whether he has made a successful kite or not. He doesn't have to have somebody to pass on the kite. If the teacher is in control of the room and maintains discipline, how much chance is there for the child to develop control which will enable him to maintain discipline in his study?

My point is to give them that which puts a premium on self-direction, self-control, self-appraisal, which permits each to work with their fellows. So as you think of these individual differences, I want you to interpret them in the larger meaning, not in the narrow, smaller meaning.

The teacher's business is to define the limits in which the child operates, put the thing to him in such a way that he may have a reason for working on the thing, and then turn the thing over to him, and therefore serve him in the achievement of the purpose.

A writing supervisor in our city has done that. She has arranged a series of writing exercises that she says represents a set task, a task that can be turned over to the child. The child has his copy but he looks at the record to see how much he must do. On the chart in the 5-A grade he sees he would have to write letter "a" in lesson one 66 times a minute in order to come up to the standard of the fifth grade ability in the city.

There is a social standard set up in determining what measure of ability is necessary in order that this child may render efficient social service. Then the thing is turned over to the child and he can prepare

for himself a measure of his success. If he writes like this, he knows he has to improve. He knows he has to write about as well as that before his work is satisfactory. He directs his own work. You will find in this room this teacher is not teaching in the accepted sense. Every child in the room is working on his own task. He is dealing with it in his own way; he is finding out his own difficulties, and as fast as he finds it out, he asks the teacher, "Won't you help me make the T. or S," whatever his particular difficulty is, and he is in a frame of mind and the attitude toward the teacher which makes the assistance of that child a very great pleasure.

We must begin our course of study in such a fashion that there can be this type of judgment of individual progress, and not only individual progress, but individual methods of work. You will notice that the concerns which buy your commercial work pay very close attention to the differences of people. It is only in education that we have disrespect for individual differences. What we are trying to do in education is to construct the course of study so that these individual differences may operate without bringing us down to a place where we must have a teacher for every child.

I am sure there are some here who will not agree with what I am saying. On this slide (shows Slide) those are not spirals; they are circles. How long will I have to argue to you by word of mouth to convince you you are looking at circles instead of spirals? If you could come here and could see that on every one of these, in the same fashion there, that that does not absolutely go into the center, wouldn't the time come when you would be convinced that those are circles? If you could convince yourself that these are circles, wouldn't you say, "Those look like spirals; what is the matter with my eyes that they operate that way?" Then you will be in a position to learn something. Psychologists say that when you have these kind of lines on this background, it produces that effect on a person's eyes.

These statements can be proved in your class. You see them scientifically and you can very quickly determine whether or not the things I have stated are true. My statement to you teachers is, won't you join with the rest of us who are trying to work out the problems? Won't you measure your classes and attempt to see if you cannot help get control of the important factors in your work the same as we are trying to get hold of them in our field. We need your assistance.

I will leave you with this word. Education is the process of helping children to show themselves; we are there to work with them—your job. We have got to recognize in our course of study—we have got to organize studies in such a way that children will recognize their difficulties so that we may come in and assist them in a practical manner, and if we do that, these other problems will take care of themselves. Probably the biggest factor of all is the definition of the goal

to be achieved so that we may turn it over to the children and set them free, put it out of our hands, change our whole ideal of teaching to the place where it means service to the child and not instruction.

TESTING RESULTS IN HOME ECONOMICS

H. W. ANDERSON,

DETROIT

Education is the process of changing the pupil from what he is to what he should be. From the teacher's point of view, there are at least four major steps in the achievement of this process. First, the aims, ends or goals of the course or study must be defined. Second, the present statue of the child must be ascertained, or, in other words, an analysis should be made of the recipients of the educational forces. Third, the methods whereby the goals or signs are to be attained by the child must be clearly determined. Fourth, the child's progress toward and finally whether or not he actually arrives at the goal must be ascertained.

I shall take as my particular task the discussion of two of the four points. The first is the application of tests at the beginning of the teaching period, which furnishes the teacher with an analysis of her problem and gives the pupils a definite idea of what will be expected of them. The second point is testing to ascertain whether the aims, ideals, or goals are being achieved in the course.

We have been accustomed to set up general aims for the courses which we are teaching. Too often they have been very vague and very general, and in fact have often existed only in the minds of the teacher or those who made the course of study. We are coming to realize more and more that the pupil must be supplied with some knowledge of the destination of his educational travels. Otherwise, he may wander about aimlessly, just as any person who seems to be headed for no particular place.

Standard educational tests are objective inquiries into the knowledge, skill or power which represents the desired ends or goals to be achieved by the pupil. Let us suppose that the power to classify foods into fats, proteins, or carbohydrates is one of the aims of the course, then an objective test may be constructed and given to the pupils at the beginning of the teaching period and, of course later to determine progress toward the achievement of this particular end. Such a test, when given at the opening of the course, serves a two-fold purpose. First, it makes this particular aim of the course objective, and reveals it clearly to the pupil. She knows exactly what is to be expected of her, and can therefore apply herself intelligently to the task. There need be no aimless wandering, because she knows not only where she

is but also where she is going. In the second place, such a test gives to the teacher an analysis of her teaching problems. She learns how much her pupils already know about this phase of the work. Perhaps she will find that a few pupils are already far ahead of the rest of the class, and that a few know much less than the others. It is difficult to realize how it is possible to teach a class intelligently and economically without this information.

The analysis of the class, however, should go beyond an inquiry into the knowledge of the subject already possessed by the members of the group. One of the chief difficulties in the way of a smoothly running class is the wide difference in the intelligence of the pupils. No amount of testing can do away with these differences, but the teacher can at least be forearmed and have a definite knowledge as to the mental capacities of those in her charge. It is impossible to estimate how much easier her task would be if she knew at the start that there are in the group three twelve-year old girls with the intelligence of fifteen-year old girls; and that, on the other hand, Mary, who is fourteen years of age, has the intelligence of a girl of eleven. Instead of spending days and weeks in worrying about the apparent failure of her efforts to make any progress with certain members of the class, she knew from the beginning that little could be expected from a few of the girls, and that much additional work could be given to others.

If I were a teacher of Home Economics, I would to everything in my power to lighten my work. I would analyze the mental caliber of my classes. This would be accomplished by giving them a group intelligence test. Next, I would give the standard tests on the subject I was to teach, and if there were non in existence, I would make my own. They would be based on the aims and objectives to be achieved. By means of these tests, I would as a teacher have a fairly accurate analysis of my problem. The standard tests would reveal to the pupils what was expected of them. Experience has shown that people who know where they are going are easier to guide than those who do not. A good start then can be assured only by the application of tests.

As the class progresses toward the end of the period and toward the achievement of the aims and ideals set up for the course, the important question hinges on whether or not they are going to arrive. It is therefore necessary to give tests which reveal the effectiveness of the teaching process. There is danger in assuming progress. Teachers have been astounded again and again by the lack of growth on the part of their pupils when the test has been applied. There is abundance of proof that results cannot be taken for granted.

Perhaps the simplest school subject for measurement is handwriting. In this subject, rate and quality are the two factors which need to be measured. Standards for each grade have been determined.

Upon the completion of the eighth grade pupils should be able to write 80 to 90 letters per minute with a quality of 70 on the Ayres scale. Those who use this scale, pupils as well as teachers, know exactly what is meant by quality 70. The scale consisting of qualities varying from 20 to 90 constitutes an instrument on which growth and achievement can be measured.

In Home Economics, there is a much wider variety of factors which must be measured. But the construction of standard tests is not particularly difficult. In domestic science, a certain amount of fundamental facts or knowledge is necessary. For example, the child should know something of food composition, cost, planning, balanced meals, etc. An illustration of a test on facts is the one on Classification of Foods. This is given to you only as a suggestion and no claims of perfection are advanced. I believe, however, that this is a form of test which can be applied to domestic science. It is definite, it is easy and simple to give, and it can be scored by pupils as effectively as by teachers. Let me suggest that you try it.

Power is another factor which lends itself to testing. An illustration of this form is the test on Preparing Breakfast as shown on one of the mimeographed sheets. In this test a simple breakfast menu is given. Below are ten necessary activities in its preparation, but they are not in any logical order. The test comes in the re-arrangement of the activities so that they form a well organized plan. In other words, this test aims to measure the power of organizing.

These tests are paper tests and may or may not measure the child's actual ability in the kitchen, but that is no reason why they should not be used. If they have no other value, they at least focus the attention of the pupils upon what is expected of them.

The laboratory test is also necessary. By this I mean the actual work in the kitchen. The making of muffins can probably be tested somewhat as follows:

- I. All girls are furnished with:
 1. The necessary ingredients,
 2. The necessary utensils.
- II. All girls begin work at the signal from the teacher.
- III. Teacher records the time each girl puts her muffins into the oven, thus getting their rate of work.
- IV. When all muffins have been baked, a rough scale may be prepared as follows: Select a muffin, which represents very poor quality, another fair, a third average, a fourth good, and a fifth very good. The pupil with the teacher's assistance should then compare her muffins with those of the scale and decide in which group her muffins belong. The teacher and

pupil would than have a record of the girl's rate of work and quality of product.

Practically nothing has been done to determine whether or not results are actually achieved in Home Economics. The field is now wide open; the materials are waiting for some one with foresight and ability to organize them and develop a series of standard tests. Let me appeal to you to begin on your own pupils and materials. It will not only increase your interest in your work, but will actually lighten your burdens.

PRINTING ROUND TABLE

KATHARINE M. STILWELL, CHAIRMAN, DEPARTMENT OF PRINTING,
SCHOOL OF EDUCATION, UNIVERSITY OF CHICAGO

PRINTING TEACHERS' ASSOCIATIONS

MISS LAURA E. HOLMES, PRESIDENT OF PRINTING TEACHERS
ASSOCIATION, CHICAGO

My subject is Printing Teacher's Association, but the only association with which I am familiar is the club in Chicago, known as the Associated Teachers of Printing. I will state briefly the need which gave rise to its existence, the steps taken to organize, what has been accomplished and what we hope to accomplish.

Printing has been taught in the Chicago Public Schools for ten years or more, but no attempt was made to organize the teachers until last year in May, when the Western Arts Association met in Chicago. Up to that time, each shop was a law unto itself, with very little supervision, and no affiliation with other shops. The feeling was general among the teachers that there was great need of some organization which would facilitate an interchange of ideas among those interested in the teaching of printing from the standpoint of educational training.

At the Round Table of Printing Teachers of the Western Arts Association in May, 1919, a committee chairman was appointed to start such an organization in Chicago. Feeling that the organization should be broad in its scope, and should include all who were interested in printing as an education subject, she invited to act with her on that committee a representative from the School of Education of the University of Chicago, the Chicago Normal College, the High Schools and the Apprentice Schools.

At its first meeting, the committee was fully represented and were unanimous in feeling that a call should be extended to the teaching force to consider the formation of a Printing Teachers' Association. Mr. Worst, the Supervisor of Elementary Manual Training, was contemplating calling a meeting of Manual Training Teachers, and he kindly consented to allow the Printing Teachers to meet the same afternoon at the Normal College. About sixty teachers gathered, and the enthusiasm displayed was very gratifying. All seemed to realize the need of better co-operation and voted to form themselves into an organization. To this end, a committee on organization was appointed, to frame a constitution and by-laws to be submitted to the preliminary

committee, and then to be acted upon by a general meeting of teachers early in September.

In September, we secured the Club Room at the Art Institute for our general meeting, and Mr. Eggers, Director of the Art Institute, gave a talk on the possibilities of art in printing. We wish to continue to make the Art Institute our headquarters, if possible, so as to emphasize the point that we consider printing an art. At that meeting, the constitution was adopted and officers elected.

The purpose of the association is purely an educational one, politics and the discussion of salaries being debarred. As teachers we are affiliated in order to make a united effort to raise the standard of printing in the schools, to give an opportunity for the exchange of education and professional ideas, and to collect and distribute such material as will be helpful in the teaching of printing.

To accomplish these objects, the society has been divided into committees, each committee acting as the leader along certain lines. The organization is so new, there has not been time to accomplish a great deal, but for the last meeting, which by the way was a dinner, the Graphic Arts Committee had arranged an exhibit of samples of work sent in by members of the Club. Most of the meeting was devoted to a discussion of these samples, and plans were formed to get a permanent exhibit under way.

The Library Committee, on Washington's birthday, arranged for an afternoon at the Newberry Library, when the custodian of the Wing Foundation showed us the collection of rare books on the subject of printing that have been collected at great expense. We also enjoyed seeing some wonderful manuscripts, and specimens of early printed books. The chairman of The Library Committee has some very ambitious plans for the future, embracing a circulating library of exhibits and a collection of books relating to our subject.

The Program Committee, of course, has planned for the programs, most of which have taken the form of informal discussions on practical subjects. The chairman, in conjunction with the Publicity Committee is planning to publish a bulletin containing schools news and helpful suggestions to be circulated among the members of the Club. We hope to issue the first number in May or June.

For the committee on Education, we are very proud to have as Chairman Miss Stilwell, of the School of Education. We hope through her leadership to formulate a course of study that will be adopted by the school board and that it will be of such a nature, that it will serve as a guide to the beginning teacher, and be flexible enough to allow the mature teacher sufficient freedom of motion.

Just now, we are attempting to enlist the interest of the art teachers in the association. At our exhibit, it was felt that some of the samples were weak on the artistic side, and if the art and printing departments could be more closely related, we feel that it would be an advantage to both.

From the added zest the club has already given to the work, we feel that we can heartily recommend to any body of printing teachers the formation of some sort of an organization for mutual help. If there are too few teachers in a single town to form a club, several towns could unite. Our own association is for the teachers of Chicago and vicinity, and we have at present members from at least three outside towns. Also, I feel that there should be helpful suggestions exchanged between associations, and if there are representatives here of other organizations, I hope that they will tell us something of their work.

Editors' Note:—The discussion that followed the address of Miss Holmes brought out the following points:

1. That the source of copy came almost entirely from the activities within the school.
2. That the school print shop should not enter into competition with commercial printers by accepting jobs for money.
3. That to some extent, practice exercises are introduced into a course in printing for the purpose of acquainting the pupil with certain phases of the work before starting on copy on real jobs.
4. That setting up real jobs stimulated the interest of the pupils.
5. That a definite outline of work is necessary to secure uniform results and that the educational value of copy should not be neglected.

FINE PRINTING

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It seemed to me, when I was asked to speak on this program, that the thing that would be of most interest to discuss would be Fine Printing and why fine printing is better than the average that we see. I think we might try to find out why this printing is better; what qualities make it better; which of those qualities we might get into our own work in the school. The thing that we have in this collection of books (this refers to books on exhibit) is a group of pieces of printing done by the great modern printers. These books were made under especially favorable conditions. They were, in most cases, printed at private presses and the result is that the printer was doing the thing he wanted

to do; he was able, in producing any one of these things, to set up his own problem, and to solve it without the interference of his patron in the result. In that case, he could select whatever subject matter interested him; he could take the thing that he thought was finest to print and could control the design and the technique of the objective form by which the subject matter was to be expressed. Cobden Sanderson, who is one of those printers, and who has printed many beautiful books at the Doves Press, says, it is the business of the printer to create a form which will "communicate to the imagination, without loss by the way, the thought or image intended to be communicated by the author." Much commercial printing is not and cannot be made under such favorable conditions as this. The man who pays for it, in many instances will try to say what form the thing he is having made for him ought to take. Sometimes he knows about it; more often he does not know what the form ought to be and the result is that form does not express the content in a fine way.

In any one of these private press books, then, we have, first of all a thing that is worth printing; secondly, we have that printed under very favorable conditions so far as time and money is concerned, so that there are no restrictions on the printer but his own ability in the craft. These books did not have to be produced in a hurry and they did not have to be produced too economically. Of course, the printer must not, as a good craftsman, be extravagant with either time or money, but he ought to have sufficient of both so he really can produce the best thing of which he is capable.

The expressive form, then, is the thing which the printer ought to produce and that expressive form should have these qualities: first of all, legibility and in the second place, beauty. In making an expressive form there are certain arrangements involved. There are arrangements of materials and of lines, shapes and sizes, values and colors. On the skillful arranging of these elements depend the visual beauty of the book.

That quality of beauty is the one which we find most neglected in the average modern work. We find, however, it is specially evident in the private presse book where there is a craftsman who is able to take time for beauty. The thing that we can do then in the work of the school print shop is to see that we are paying sufficient attention to this question of beauty in design. This may in the first place be evident in the selection and arrangement of the materials we use.

In choosing paper, we can take one which has an interesting texture. Many of our modern machine made papers do not have interesting textures. Most of these books exhibited here are printed on hand-made paper, and the slight irregularity of the surface and the firmness of the paper, are characteristic and beautiful qualities. Of course, we

could not use hand made paper in the average piece of commercial work, but we can find a machine made paper that has there interesting qualities and which is not too heavy or too light for the purpose. We particularly want to avoid as much as possible, coated papers, with too glossy a finish. If that makes it necessary not to use half-tone blocks, then eliminate them and substitute fine cuts which will print on papers that have beautiful surfaces.

Then, after the selecting of the paper, we have the question of ink. The ink ought to be of material which is not too glossy, a good black without cream color, so it will stand up well when it is printed. We do not want to use a great deal of varnish in ink so as to produce a very quiet surface.

In regard to the type, I think we will find in most finely printed books, that the type is designed so as to make an even tone on the page. Each letter has been very carefully considered. That is not always the case in commercial type which we buy from the type foundries. In the average modern type, we find a great many of the letters are not well designed, usually, for example, the lower case "g" makes a black spot on the page wherever it appears. In the tail of the "g," the white space is not sufficiently large and the letter makes a spot blacker than the rest of the page. This is particularly evident when the two small "g's" occur together. The type ought to lock together well into words so as to make a continuous band of letters and as far as possible these bands ought to be set pretty close together on a page. Most of the fine printers have preferred to set their type solid or possible in a few cases, to set it single leaded, although I think most prefer to set solid.

In the question of arrangement, the first thing the printer has to choose is the proportion of the page. With this he begins to make his arrangements of line, shape and size, value and color. The page rectangle is usually decided in printing by folding down to the desired size a large sheet of paper. It is necessary to cut these large sheets into smaller ones, without having much waste, but even if the page shape and size be determined by folding down a large sheet the resulting rectangle may without much waste be modified slightly to produce a more beautiful rectangle. If any rectangle be considered from the point of view of beauty, we may find by taking off a little piece from the side or from the top, or bottom that by this change of proportion, we have greatly improved its appearance. A great many different proportions have been suggested as those of an ideal rectangle for use. The most common one is a rectangle with the ratio of 5 to 8 which is sometimes called the Greek proportion. Perhaps the most enlightened statement, in regard to the proportion of rectangles and the way of treating the areas inside of them has been developed by Mr. Hambidge

of Yale University. He seems to have rediscovered a proportion used by the Greeks in design for buildings, vases and all the arts. This method does not restrict the designer to one rectangle, but gives him a number of beautiful rectangles with which to begin his design. Mr. Hambidge is publishing a magazine called "The Diagonal."

When the shape of the page has been decided, and that ought to be carefully decided and carefully selected for beauty, the next thing the printer has to decide is the question of the margins, or shape and size of the letter block. I think, usually, the margins are settled on first, and the margins in these pieces of fine printing differ from the margins we find in the average book, in the book you buy for school or that you read. The margins are different in this respect: they carry on a tradition from the time when books were made by hand, in that they have a fine varying proportion in the margins. In a single page, for example, in this broadside, (exhibits page), a handsome piece of printing, the upper margin is the smallest (the bottom margin about twice that and the margin on the side so that the proportion would be about two, three and four, increasing in size from top to bottom. In a book the two facing pages are considered a unit and the margins are in this proportion: top, two; outer, three; bottom, four or more; inner (the margin at the hinge) one and a half. The inner margins of the two facing pages together equal one of the outer margins. This was a tradition of the scribes who made books in manuscript and the early printers adopted this manuscript tradition into their work. The work of the first printers had a certain freedom because they were governed by a tradition derived from books which were very freely made and which had not the mechanical considerations which attach to work produced with the printing press. We find a great deal of variation in the early printed books, and we also find a great deal of variation in this modern fine printing because of the fact that the printers know about the manuscript work.

After the shape and size of the page and its margins have been planned, next to be decided is the size of the type and the spacing between the lines of type. A great deal of modern printing is in type which is too small for the size of the page. Probably a tendency exists towards too small, rather than too large type. If we could use slightly larger type we would have a more legible book. After we have planned an ordinary page, have made it as black as possible, have made the white spaces between the lines as small as we can, then we have to consider ways of distinguishing the headings from the body of the page and of making divisions in the text. Probably the best way of distinguishing the head from the main body of the type is to print the head in caps. If just printing the head in caps is not enough it can be printed in color. In making paragraphs indentation may be used, but as the printer should be careful to keep the rectangular

shape of the page filled up as much as possible, other methods are often desirable. In manuscript books, it was customary to use initial letters as paragraph marks, placing them in the letter block or often in the margin. Special paragraph marks were sometimes used but rarely indention because the scribe preferred to over-fill rather than to under fill the letter block and did not want to have the margin invade the letter area. The early printers followed the scribes in this and many of the modern fine printers have done this also.

The ininitial letter in the manuscript was the first piece of decoration. In early books, it was either drawn in a space that was left when the book was written or put in the margin outside the letter block. The initial letter was often decorated with flourishes and later these grew into a kind of border, which filled one margin of the page. Still later this border grew into the top and bottom margins, and finally around the whole page; then, next, the border became detached from its origin in the initial letter and in the last and decadent stage, the border came to occupy most of the page space and quite overshadowed the writing and the initial letter. All of these types appear in printed books. In the medieval manuscript books, also the illustrations known as miniatures, occupied the background spaces of the large initial letter or a special portion or the whole of the page. These forms were carried over into early printed books and modern fine printing. In printed books, the decorative pattern of lines and areas of the initial letter or border, or the slightly less formal pattern of lines and areas which suggest objects in nature in the illustrations must be related to the tone of the page. The initials, borders, head and tail pieces and illustrations may have the same gray tone as the mass of the type or they may have a heavier or lighter gray tone, but in any case, the designer must see that he has adjusted all of his elements, type, initials, head and tail pieces, illustrations, so that the double page of his book makes a unified impression. The weight of the type mass is the thing which is the first established and to which the rest are related. In fact it is essential to have this unity throughout the entire book—the binding, the cover design, the end papers, the half title, the title page, the chapter headings, the tail pieces, initial letters, the printers mark at the end, should all have the same general style and, none of them being too important for the whole, all should contribute to the complete unity of that whole.

One word about illustration and their design. The page of a book is a flat thing. In making an illustration for a book, it is often well to recognize and emphasize the flatness of the page, and to arrange the figures and objects in the form of a procession across the page. This avoids perspective almost completely. In the second place, it is well, usually, to omit much light and shade and shadow and very round modelling of the forms. In place of this there may be used the con-

tours of objects or outline patterns which suggest the character of the materials, lines of hair and drapery, tufts of grass and flowers, lines of waves in water and clouds and stars in the sky. This will help to give the drawing a mass of lines, about the weight of the lines in the type, and background areas of somewhat the same size as those in the type mass. Thus the type and illustrations are related and unified into a page.

(A number of books were here produced and this point was illustrated to the audience.)

In conclusion, may I say that I think a great deal of the art that needs to be taught in the schools, ought to be taught by the printing teachers. I think you will have to teach some drawing, not as an end in itself, not in order to have a nice example of still life or drawing of flowers in lights and shade, but because you cannot make your book, or make your other pieces of print without having a class make a drawing to show what to do, and if you do that kind of drawing in the schools, and the drawing teacher keeps on doing drawing as drawing, you will be the teachers who are really teaching art.

It is necessary to make a careful layout for each job. This must show a beautiful shape and size for the page; well proportioned margins; a simple shape for the type mass; a beautiful face of type, usually one face throughout and the fewest number of sizes; headings and paragraphs simply marked and interfering as little as possible with the simple shape of the type mass; little decoration and the illustrations related to the shape and pattern of the type mass. If your art teacher co-operates by having the children make, in the art classes, decorations and illustrations for the products of the school press, it is essential that that teacher learn something about the process and limitations of the craft, and especially how to make drawings that will be suitable to print with type.

A careful study of the appearance of job in proof form is necessary and often a revision before the final printing. This will require time, but it will be time well spent, and if you teach these things, you will not only be doing a worthwhile thing for printing, but also for art by getting it into one of the many things which people use in daily life.

TYPOGRAPHICAL LAYOUTS

(a) Their Construction and Value

CHARLES NEVILLE WALKER, CASS TECHNICAL HIGH SCHOOL,
DETROIT, MICHIGAN

As a trade proposition, I preach printing rather than from the artistic side. Our idea, in all of our school print shops is to educate and to develop the boy, in printing as a mechanical trade.

The requirements of good display composition make the layout more and more necessary. With advertisers and artists continually setting definite standards of style for the printer, a new method of work is imperative both to get the results demanded and to get these results economically. There are several methods of laying out work so that a good compositor will achieve the result desired, but there is need of a standard method of lay-out and instructions in any shop which will insure economy of the workman's time.

These are Mr. Dorr Kimball's words: "The idea of design includes all specifications in advance of operation. It is the work of layout and copy preparations. It does not include designing or drawing sold as art work, or copy writing or planning sold as advertising, as these operations are outside the work of the composing room. Composing room layout consists of deciding how a job shall be set and furnishing complete working instructions for all operations."

Too often the layout work is simply left for the compositor. The work of the layout man is to furnish complete instructions for the three operations, setting, make up and lock up. The layout man also prepares the work ticket for each operation with standard time given.

For setting, the instructions consist of the copy for the matter to be set marked to show type, measure and spacing.

For make up the instructions consist of proofs of all type involved, proofs of special material, proofs of cuts, bill of spacing material and layout sheet. For lock-up the instructions consist of proofs of the pages involved, diagram of lock-up with material given. A great deal of time is wasted in locking up such a thing as sixteen pages at one time for a book. I wonder if you have ever stopped to think about it. How sixteen pages are arranged in one form, all printed at one time, and the printed one on the back of the other on the one sheet, and when that sheet is folded up the pages all come up in the proper order. It is a very complicated and intricate matter. You have to arrange the material, it has to be put right, the right space has to be allowed for the trimming to bind, and certain other considerations.

The instructions for setting consist entirely of copy preparation. To prepare the copy for any job, the layout man must determine how the job is to be displayed, what size the page is to be, what type, and the style. This he does by making a rough pencil layout to scale on,

say $8\frac{1}{2} \times 11$ inch sheets of stock, or multiply square ruled to picas.

The best paper to use for this on $8\frac{1}{2} \times 11$ inch sheet of yellow chemical manilla printed with numbers for 28 lines at left and scale at the top, and bottom for 53 typewritten characters, with vertical lines for beginning and average ends of lines. This is for standard pica typewriter. The advantage of having 53 typewritten characters to the average line lies in the fact that this line when set in type of any size, makes 35 ems. With the lines numbered in the text it is a simple matter to compute the number of ems in such a page of manuscript, but a very difficult to find out in handwriting, very difficult. Then, if these lines are numbered on the side of the page you can easily see how that is done.

* * * * *

(Here some examples of layouts with the finished jobs were shown to the audience.)

The examples of layouts that I have just presented to you are the very highest that can be done, and as far as I, a printer, am concerned, I know it would be impossible for my boys, (for my students in the evenings are men) to be able to compete and produce fine work like this. It ought not to be expected in children; it ought not to be an ideal to set before teachers, because if the teacher should ask the student to reproduce work that the educated workman that has had over forty or fifty years can do, my goodness, I don't know where we will get off. What's the use, why not put them all in the plants, let them go and work there instead of keeping them in school. Do you suppose the accounting department of a bank would go and take a boy or girl out of the High or Business Colleges and put them in charge of their books down there? Well, I guess not, and I do not think any boy or girl ought to be expected to do printing of any such charter.

I would like to talk a moment on the point brought out about the printing teachers teaching art, and teachers of art teaching printing. Let me say that I have about four or five classes, distinct different grades, kinds and descriptions of pupils. I have an evening class composed of men who are working in the printing plants in the city. We only have these propositions part of the year. I have a regular high school training class, boys up to about the 10th and 11th and once in awhile the 12th grade. I find it very difficult to keep them, the printers just gobble them up, every boy they get hold of; lots of my boys go out and work half days in the plants and on Saturdays. I have what we call junior continuation boys, some of them are in the printing plant and others are in other occupations who are resirous of getting the rudiments of the trade so they can get into the trade later on.

Editors note:—Mr. Walker presented several examples of high

cases printing. As the balance of his discourse referred directly to these illustrations, it was therefore deemed advisable to eliminate this part of his discussion.

(b) Art Teachers' Contribution

RUTH RAYMOND
DEPARTMENT OF ART EDUCATION,
UNIVERSITY OF MINNESOTA

When Miss Stilwell asked me to speak to you today on what the art teacher can do to help in the print shop. I resolved to set her before you as a model of what the printing teacher can do for the art department. We art teachers need your patience, your problems as subject matter for our students, and the practical experience you can give us in making our art knowledge apply to some of the real work of the world. You may have to point out to us that our beautifully decorated initials are so far from the edge of the block that the type with which they are to be read seems to belong to another word. But, we will soon learn, and we really have some knowledge to give in exchange for your kindness—knowledge which will prove of use to you.

I suppose I am justified in assuming that the ranks of printing teachers are recruited from those possessing the scientific rather than the artistic type of mind. Your judgments are trained mathematically rather than aesthetically. The majority of you think measurements in terms of fractions of an inch—the natural and efficient way, yet sometimes lacking in the subtlety which the art teacher may add to the proportion of printed area to margin, or of distance above center in the placing of printing on a card. Her whole experience has been in dealings with beauties of space relationships, and she has neglected her opportunities, if in such matters she has not developed her aesthetic judgment. She should be able to help you space elements on a page so that their forces of attraction will balance; to select, or have the pupils design the border that will set off certain printed matter to advantage; to choose the width of rules that will emphasize the structural quality of a page without giving it a mourning border effect.

She ought to be sensitive to textures and ready to help you select your paper stock. She may curb your enthusiasm for displaying too many of your attractive fonts of type on the same printing order. She will know how to design, or to help her pupils design for you, very interesting linoleum blocks for the embellishing of covers of programs or of advertising folders. She will make a serious art problem of the assembling of the elements of printing rules or decorative units on those covers—and she may do it better than you do—because that

kind of thing is her business, provided you have gently led her to an appreciation of the limitations that govern in printing.

But, best of all, she will help you with color. Unless you are more than usually artistically intuitive, or unless you have been artistically trained, you are probably confined in practice to more or less obviously safe color combinations, though you may admire the more daring, and at the same time subtle color harmonies, which some of the big engraving firms issue. Of course, I know your art teacher is competent to help you get some of these effects, but I intended to teach you a little system which I have found very practical and with which you may beat your art teacher at her own game of color harmony.

The system really belongs to you, for it was developed by Mr. Louis Wilson from discoveries made by him and Mr. Maratta in relation to printing inks. Mr. Wilson died just a year ago. I should like to pay tribute to his memory for the very helpful studies he has made in color harmony.

He has worked out a very ingenious analogy between the mathematical lays which control harmonious relations in music and those which govern color harmony. My five minutes is much too short to discuss his findings technically, but I am going to show you the scheme he has developed, and tell you how it applies.

I am no musician, but, I can count notes on the piano, and I find that by starting anywhere on the keyboard with a note, then counting the fifth note higher, including both white and black keys, then the eighth and striking the three as a chord, I have a pleasing sound. I can strike a minor chord, one—five—seven a diminished chord, one—four—eight, and an augmented chord, one—five—nine, in every case the relation of intervals gives a pleasing chord.

Now, Mr. Wilson shows that by arranging colors to correspond to the notes on the keyboard and using the same intervals, with variations in value and intensity or chroma, color harmonies will be obtained. He arranges his color keyboard thus (indicating on a sketch) with purple corresponding to "C." You see that in order to have the black notes come right he agrees with Munsell in minimizing the space allotted to orange. We have purple, red purple, red, red orange, orange, yellow, yellow green, green, blue green, blue, blue violet, violet. You notice that violet is a bluer form of purple. Blue violet is about the ultra marine found in the children's three color boxes.

Starting anywhere on this keyboard (indicating) and counting the intervals one—five—eight, we got such a series of colors, as, for instance, orange, blue green, and violet. These are not all to be used crude, in full intensity chroma. The color corresponding to one, must be much grayed that corresponding to five should be half grayed, while number eight maybe used in full intensity. Grayed orange would be

brown or tan, a good background in paper stock for the cover. Suppose we took tan and printed our cover in two colors of ink, a rich rather dark and somewhat grayed blue green, and a bright, light violet. Or, suppose, we wanted orange to be a dominate note, a spot of full intensity color. We would call that eight and turning backward, we would find that a grayed red purple, rich and dark like old mahogany, would be our other ink, which, we would print on a very gray blue—a slate colored stock. A dark sage green stock could be printed with a grayed violet and a scarlet or orange vermillion combination.

Anybody can print a dark brown ink on a tan stock, or a dark green on a light green; more adventurous spirits try dark blue on green; or bright yellow on dark gray. Suppose you be more adventurous still and experiment with some of Wilson's triads. From a good deal of experience in handling them in student work, I recommend them to you, only, a word of warning, don't neglect the graying. Remember it is only the eighth note that is in full intensity. The fifth is half grayed and the first so gray as to be only recognizable by its color name.

DISCUSSION

Miss Townsend: I wish to state that I am not an art teacher, and I would like to know if the printer is going to teach art in school, where he is going to get it; we get our printers from the trade and most of them have become that when they were quite young. I am asking this question in all sincerity.

The Chairman: Will some one from the floor answer the question.

Mr. Vogle (Of Cincinnati): I would say that if the printer is going to teach art to his students, he must have been taught art, and he cannot get it except from the source of art, from those who have studied the subject—from those who have studied the subject. A very interesting experience I had with a group of printers about a year ago. I raised some question on some material that I presented and asked the men how this particular typographical work was balanced, and they gave me their traditional way of having to get the results. Then, I proceeded to show them the shadow way of balancing a page. Incidentally, one man said, "I have been printing for thirty years—why didn't I discover that myself?" On another occasion a man said, "I have been printing the best part of my life, why could not have somebody told me that in my earlier days" and the entire class were of the opinion, that when their boys learned the trade, they should be taught something of art in relation to their work. They explained that if they had difficulty with a piece of work that they would go to a foreman and the foreman would say, "Remove this line," "Change that space," "Change that type." He gave no reason, the boy goes

back; he makes the changes, brings them back to the foreman and he says, "Make this change." Boy does it—brings it back, finally it is accepted. It is all right, yet the boy has not learned one principle: he is not told a single underlying reason why the foreman orders these changes. Now, each foreman ought to be a teacher, and he should instruct the student, "For this reason I would suggest that you change that"; "For this reason, make an alteration there," and so, I come back to my original statement the printer will have to be taught art in relation to his trade, and craft.

BUSINES SMEETING

Mr. Pritchard: I nominate Mr. Gossett, of Indianapolis.

The Chairman: Any other nominations?

(There were no further nominations.)

The Chairman: Those in favor of Mr. Gossett acting as chairman for next year, will please signify by "aye."

(There were a number of ayes.)

The Chairman: Mr. Gossett will be chairman for next year—no further discussion, the meeting stands adjourned.

BUSINESS MEETING HELD MAY 5th, 1920

Meeting called to order by President Wood.

Nominations for members of the nominating committee were called for, and the following were nominated from the floor: L. J. Pritchard, Miss Scovel, Mr. Vogel, Mr. Kissack, Miss Stilwell, Miss Carey, Miss Hayden, Miss Fitch and Mr. Bennett.

The nominations were declared closed and on motion, duly seconded, the convention proceeded to elect three members from the nominees, it being understood that the three nominees receiving the largest number of votes, were to be declared elected. On motion duly seconded, two tellers were appointed by the chair. The tellers reported that the following had received the highest number of votes, viz: Miss Florence Fitch, Mr. Chas. A. Bennett, and Miss Scovel and these members were thereupon declared to be the duly elected nominating committee.

The President named the following members to act on the committee on Resolutions: Mr. H. Hollenbach, Miss Beechey and Miss Mary E. Edmonds.

BUSINESS MEETING HELD MAY 7th, 1920

After the meeting was duly called to order by the President, the Treasurer was asked for a report. The report given was tentative only and indicated probable receipts of \$2319.85 and expenditures of \$2275.72, leaving an estimated balance of \$44.13.

The report printed below gives the actual condition of the Treasury and is a copy of the report accompanying the Treasurer's Books, which are now in the hands of the auditor.

REPORT OF TREASURER

Western Arts Association

From December 1, 1919, to July 1, 1920

RECEIPTS

Balance in Bank, Dec. 1, 1919.....	\$ 359.18
Investments, Bond No. 1467, due Jan., 1920.....	995.00
Bond No. E-110, due Jan., 1927.....	510.25
Dues (402)	804.10

Advertising	365.61
Sale of Reports.....	31.75
Poster Space	10.00
Single Admissions75
Interest on Bonds	70.00
Bond Paid	1,000.00
	<hr/>
Receipts	\$4,136.64
Gain on Bond No 1467 when became due.....	5.00
	<hr/>
Total receipts.....	\$4,141.64

DISBURSEMENTS

Publications	\$1,500.27
Expense Program Committee	423.57
Expense Report Convention	388.00
Expense Printing Round Table.....	3.08
Expense Banquet	67.82
Expense Salary Committee.....	10.00
Expense Secretary's Office, Printing, Postage etc.....	36.99
Expense Secretary attending convention.....	35.16
Expense Clerical help at convention.....	9.60
Expense Bond Premium (Secretary's Bond).....	2.50
	<hr/>
Expenditures	\$2,476.99
Sale of Bond	1,000.00
	<hr/>
Total expenditures	\$3,476.99
Balance on hand.....	\$ 664.65

As Mr Lake, Chairman of the Program Committee, could not be present, Mr Abbott read the report as follows:

"The Program Committee was not appointed until a few weeks before this meeting so that scant time was allowed to secure a program of any sort.

That a program of exceptional merit was secured so promptly, is due largely to the generous and prompt response of those asked to take part.

This generosity is evidenced by the fact that no speaker has asked for more than incidental expenses to address the Association and in most cases as members of the Association have contributed their expenses and services.

Under these conditions the Program Committee has been able to supply one of the best programs in the history of the Association and keep within the allowance for expenses made by the Council.

The program has not been changed in order over the past one except by the transfer of one round-table session from Tuesday afternoon to Wednesday afternoon, thus avoiding the objection to a round-table meeting preceeding the opening general session of the program. There seems least objection to having two round-table meetings at the same time over extending the total time of the meetings."

As the Chairman of the Council was not present, the President asked Miss Fitch to make an informal report for the Council. Miss Fitch reported as follows:

"The Chairman of the Council called a meeting for Tuesday afternoon at 4 o'clock. I went and sat down and was rather lonesome for a while, and Mr. Abbott joined me and we had a very nice visit. Finally, Mr. Wood, as an ex-officio members, came in and we still enjoyed it and waited from four o'clock to quarter to six. We had no word from our Chairman. We had no word from any other member of the Council. We supposed they were coming. They did not come, and we have not found out yet where they are. We will do our best. I don't know who we are or what we are. All I can say is that we are ready to do all we can do. What you are going to do for the rest, I don't know."

Mr. Carl T. Cotter then gave the report of the Editorial Board: "The Editorial Board has no formal report to make at this time, as the work of this Board is done after the meeting. I do, however, submit some things in the way of requests from the Council that perhaps you ought to be informed upon. As you all probably know, the money which in the past has been derived the sale of space of commercial exhibitors has been used for the purpose of paying the expense of editing the annual report. At Chicago, there was no commercial exhibit; there is no commercial exhibit at this meeting. Consequently the revenue which in the past has almost completely paid for the publishing of the report has been completely cut off.

The chairman, therefore, when he was notified of the fact that he was chairman, was called upon by the Secretary to secure advertising for the preliminary and final programs. Now, according to the Constitution, the Editorial Board is supposed to collect and edit the proceedings and meetings, and so far as I myself am concerned, and I think I speak for the rest of the committee, the Editorial Board ought not to have anything to do with the advertising or setting the rates that go into the preliminary and final programs. I asked the Council to make a definite ruling on this, and I presented it in this form:

"Owing to the fact that the usual source of revenue of the expense of publishing the annual report has been cut off, due to the change in the policy concerning commercial exhibits, the Editorial Board would like a ruling as to what extent, if any, they would be expected as a board to secure sufficient advertising to pay or assist in paying the publishing of the annual report.

"The Editorial Board would also like to know, for the benefit of future boards, to what extent, if any, they should be required to secure ads for the preliminary and final program. This question arose some weeks ago when the chairman of this committee was informed by the Secretary that it was up to the Editorial Board to secure the advertising for the preliminary and final program. This caused some delay with the result that the amount of advertising for the preliminary and final program was far below what was anticipated. Personally the members of the Board are of the opinion in as much as they have no participation in the preparing of either the preliminary or final program, that they should in no way be held responsible for the advertising done therein."

I don't know whether this is a proper time to say anything in regard to commercial exhibits, but as chairman of this board, I have been approached by several of the commercial people that are here at this meeting, and there seems to be a feeling that the commercial people ought to be provided with space for exhibits. I think some action ought to be taken at this meeting, that a definite understanding be had with the city inviting the Association, that some guarantee be made for providing space for the commercial exhibit. I know in talking with members that there is a feeling here that the people are missed. I do not believe there is a manual training commercial man, at this meeting, and I think there are three or four art commercial interests represented here in a rather informal way.

On motion of Miss Gertrude L. Carey the name of Miss Jean Corser, of Cleveland, Ohio, was presented for nomination as Chairman of the Art Round Table, the Round Table having neglected to elect its Chairman during a meeting of its section. On motion duly seconded, Miss Corser was declared elected Chairman of the Art Round Table.

Mr. Irons reported for the Committee on Salaries as follows:

"Nearly every Saturday this last year I have answered about eight hundred letters and numerous postal cards, the result being that your Salary Committee is so absolutely tired out that they could not make a report if they wanted to.

"I sent the postal cards all over the United States, and strange to relate, I have had very generous response. In the larger cities where the salary work has been carried out by a large body of people, salaries have been raised. Most of the letters that have come to me came from

small places wanting to know what they should do to help them boost their salaries.

"Two weeks ago, I went to the 15th district Rotary Club convention, which covered six states, and the only resolution that the Rotary Clubs put through at that convention was a resolution that the Rotary Clubs in those six states were going to boost teachers' salaries in those six states.

"We have got the headquarters of the International Rotary in Chicago to second the motion, and before the year is over, we will have practically all the Rotary District conventions on record as being back of the raising of the teachers' salaries.

"If I should try to do anything in the nature of a report on these figures that I have, it would take me until six o'clock next Monday evening to tell you a small part of this tremendous mass of figures. I don't know why I ever suggested this thing a year ago and got myself into this awful mess. This committee on teachers' salaries must work on next year and the year afterward. If this Association is going to be of any use to all of us, the Association has got to get back of this thing and make itself felt.

"We have got to have these people feel that we are doing something for them all the year through. The returns on these schedules I have made up in numerous tables will have to be put in the annual report and we can look at them for ourselves. And then many suggestions can be included in the study of those tables to show the problems on this side and that side and the other side, to see what can be done to get some sort of square relation between the salaries of different types of people.

"One of the members of this committee wrote to me, 'I don't see what you are trying to do, and I don't see what good it will do you after you have got it.'

"In a great many cities a large mass of the teachers worked for raises in salaries, and the corps, usually as a corps, was raised, and that raise in most cases was a flat raise of so many hundred dollars. In hardly any of those cities was the special training of the special teacher taken into any consideration in raising their salary. If we are going to put in our time and become special teachers in our particular work, that time and that energy and that experience will be taken into account. In looking over all of these tables, I have had to deal with, I find that in one city that the manual training teacher was the highest paid junior high school teacher, and the drawing teacher is the junior school was the lowest paid teacher.

"In another city, I found that all the teachers in the junior high school, whether they were special teachers or regular teachers, were all paid the same.

"Another place, I think the drawing teacher was paid a thousand dollars more than anybody else, and the other teachers were way down.

"So in getting this comparative relation between the different kinds of teachers in the grade schools, Junior high schools, and the high schools, we find there is absolutely no relation of those two throughout the country anywhere. In getting hold of the schedules of all the supervisors in one city, the drawing supervisor got fifteen hundred dollars more than the manual training supervisor.

"In another city, the kindergarten supervisor got fifteen hundred dollars more than any of the other supervisors. In another city, the music supervisor got twelve or fifteen hundred dollars more than any other supervisor. Here, in Detroit, they have worked out a well-balanced schedule.

"The Association, I feel, must do one or two things. This work should be tabulated in tables and printed in the proceedings so that we will have that as material to work with. That material must be put in such printed form that it can be used by teachers to be presented to their board of education to show in a business-like way the whole relation of these things. We must get that material out so that anybody can get the material to use in presenting it to the board of education. That has been just salary work I have done myself.

"So one other thing that I believe the Association must do, and that is to get some sort of a statement we can all think about, and work on it, and get a maximum and minimum for the different types of special teachers and get that in form so that it can be sent to these people who need it to help out on their salary schedule.

"I think quite a summary of this report will be reached in the course of maybe four or five weeks, and we have that summary printed by our printing classes of our own schools, so that I think in the course of five or six weeks, there will be something actually you can get."

Miss Guysi states that she would make a formal report for the Exhibit Committee; this report is as follows:

"It seems to me as if the work was not well defined, either as to the Association or to the city entertainment, the actual work involved, of course, is more or less endless but it is not nerve racking—I think any city could handle the convention with at least fifty per cent less effort if the duties were well defined. I don't know how we would have gotten along at all if it hadn't been for Miss Marsh of Chicago. I wrote over to Miss Silke and Miss Silke had the accident which keeps her from being with us during the convention, and Miss Marsh very kindly gave me all the information, just what your committee did in Chicago, and the amount of money it cost them to entertain, and so on. It made me a basis for work here. But we found that public business is not conducted with the same care that private enterprises are. When

an association comes to a city and says guarantee expenses, immediately anybody who has anything to guarantee wants to know what the expenses are. It took many months for us to find out. We were perfectly glad to do everything we could for the welfare of this convention. We had telegrams from the Board of Commerce and the secretary of the Detroit Hotel Association, and we didn't know what to do. We couldn't give any definite information. I had to go to the Board of Education and give them an approximate estimate of what the thing was going to cost. I had to do it all. There are people who could tell us what should be done briefly so that the work could move smoothly and we would not have to give up practically a year to entertain the convention.

"Another thing that struck me was, we have heard how few commercial members are her. As far as I know—and I have this brought to me by Detroit people coming in at the last minute wanting to know something about the convention—as far as I know, there was nothing done by the way of securing advertisements in the City of Detroit, as we have a number of firms who would be very glad to advertise. We have the Detroit Publishing Company, one of the biggest publishing companies in the country; we have another company of large size; we have different artist's material people. I said to the secretary of the convention, 'How will you manage it? You haven't one dollar of Detroit ads in your program and you are several hundred dollars in debt. It is bad business.'

"I tell you these things not by way of complaint but by way of suggestion, that if we would turn this into a real good business organization, we would not be a thousand dollars behind, but we would be two or three thousand dollars ahead after you meet in a city the size of Detroit"

Mr Bennett suggested the advisability of recommending to the next Program Committee that more days be devoted to the meeting in order that an opportunity for visiting the exhibits might be definitely scheduled in connection with the program.

Miss Fitch brought to the attention of the convention the dilemma of the Council in the fact that no other member was present at the meeting and suggested that in order to enable the Association to do business, four proxies be appointed by this session to meet immediately at the close of the convention and transact business that must be taken care of. On motion of Mr. Cotter, and duly seconded by Mr Hollenbach, it was voted to appoint four proxies. Those appointed were as follows: Miss Ellis, Mr. Vogel, Mr. Varnum, and Miss Wilkerson.

Mr. Kurtzworth suggested the possibility of the Association adopting a slogan and said, "Mr. Wood, I suggest that it might be a good idea to have a slogan to work to. These are days of propaganda, church and Liberty Loan propaganda. This organization could not

get very far unless it did have some organized movement to get itself on the map. In most of our schools drawing, design, manual training, domestic science and art, are secondary considerations, lost in the shuffle of academic things. We have got to put ourselves on the map. This organization can do no better thing, I think, than to organize to wake up the educators in our public schools to the fact that we and not they are the real educators, and that our work is just as important as theirs and should have as much consideration. I would suggest this slogan, 'Educate all the educators in 1920 to the new value of the art.' Possibly you might put it on the program. Anyway, see what you can do with it."

The matter was referred to the Council for consideration.

Mr. Hollenbach reported for the committee on Resolutions as follows:

The Committee on Resolutions submit the following:

BE IT RESOLVED, That we thank the City of Detroit, as represented by the Superintendent of Schools, Board of Education, Board of Commerce, the Press, the school people of Detroit, and all the entertainers for their hospitality in inviting and entertaining us at this convention.

BE IT FURTHER RESEOLVED, That we especially express our sincere appreciation for the efforts of Mr. Harry E. Wood, who has assumed so well the duties of the president; of Miss Alice Guysi, who has worked untiringly and has done so much to make the program a success; of Mr. Albert C. Armstrong, as chairman of the Exhibit Committee, who has faithfully looked after the placing and care of the exhibits; to Mr. Carl Lindegren, of Ypsilanti, for the wealth of songs he lavished upon us at the banquet.

BE IT FURTHER RESOLVED, That we thank the Detroit Institute of Arts, Detroit Society of Arts and Crafts, and Board of Commerce for granting us the use of their buildings for our convention.

BE IT FURTHER RESOLVED, That we thank the Hotel Statler for its service to us, both meeting places and room reservations, and to the other hotels of Detroit who have accepted our reservations in the face of a shortage of hotel accommodations which is nation-wide, and is especially acute in Detroit.

BE IT FURTHER RESOLVED, That we wish to thank all who have taken part in the program for their zeal and efforts, and we hereby express our appreciation to them. We regret the absence of some speakers and many members of long standing whom we do not see here.

Miss McKinney, President of the Detroit Teachers' Association and the Chairman of the Local Committee, related some troubles the local committee had encountered and suggested that local advertising might very wisely be arranged for in the Final Program Bulletin.

Mr. Detterer criticized the printing and noted remarks made in the printing section by members present and suggested the possibility of

the co-operation of the Printing Section to the end of securing better printing. The matter was referred to the Council for consideration.

Mr Cotter suggested that we would have a larger attendance at our business meeting if it could be arranged for at a different time on the program. Miss Fitch and Miss Guysi suggested that the program as arranged was too full. The matter of program arrangement was referred to the Council.

The Committee on Time Question reported through Mr. Bennett, Chairman and recommended that the committee be increased to seven members and that an appropriation of \$200.00 be credited said committee. The matter was referred to the Council for action, it being suggested that the incoming president add to the committee.

Mr. Bennet's report is as follows:

"This committee has assumed that its work was primarily to state what should be, rather than what is or what has been. However, as a basis for what should be, it must consider, at least in a summarized way, what has been and what is. The committee must have data to work from.

After looking into the problem assigned to it, the committee has reached the conclusion that it has not at hand and cannot find available the data needed to complete its work in a manner creditable to the Association. It has, therefore, decided to present at this time in the form of a preliminary report merely a summary of data and discussion that was obtainable. This consists chiefly of the results of the work of a committee of the Eastern Arts Association that worked on this problem for two years.

"Your committee wishes to suggest that this problem is so far-reaching, has so many angles, is changing so rapidly, that if the Association wishes to have an adequate report based on facts as they are at the present time, and covering the whole range of the arts represented in this Association, it should enlarge the committee to seven or more members and give it an appropriation of funds with which to carry on an investigation by the questionnaire method.

"Your committee would, therefore, recommend that the following be accepted as a preliminary report, and that an appropriation of \$200.00 be allowed to cover expenses of printing, postage, and clerical work incident to collecting data from which the committee can draw conclusions and make recommendations to the Association. After giving the matter some consideration, it is believed that only in that way can the committee prepare the kind of a report desired.

I. Statement Summarizing Past Conditions with Reference to Time Allowance

"In 1913, a return postal card investigation of the time devoted to manual training was made by the chairman of this committee, covering

196 school systems. These were in all sections of the country and included cities and towns of all classes. The results were tabulated as follows:

Hours a week	6	7	8	9	10	11	12
1 hour.....	49	27	14	7	3	3	3
1 hour to 2 hours.....	81	117	117	31	24	15	9
2½ hours to 3 hours.....	5	19	28	25	21	13	9
3½ hours to 4 hours.....	3	4	8	32	24	22	14
4 to 5 hours.....	2	1	4	25	29	24	18
5 to 7½ hours.....	0	0	4	39	39	31	28
8 to 10 hours.....	0	1	1	4	7	8	4

"This table indicates that at that time one to two hours a week was the amount of time most commonly assigned to manual training in the 6th, 7th, and 8th grades, and that in the high school there were just as many places where from one to four hours were given. In only a few cases was the time allowed even in the senior high school, as much as 8 hours a week. Twenty-five cities allowed 2½ or more hours in the 7th grade; forty-five allowed 2½ or more hours in the 8th grade; forty-six allowed 5 or more hours in the high school; a few cities maintained special vocational or provocational school or courses in which from one-third to one-half of each school day was given to shop work. As a rule, the amount of time given to domestic science and art is the same as to shopwork.

"Since 1913, the number of prevocational classes has increased, due very largely to the development of departmental instruction in the 7th, 8th and 9th grades, usually designated as the junior high school or the intermediate school. In this new section of the school system, however, it is disappointing to find that in many cases the prevocational aim, which was fundamental in the development of this new type of organization, has been lost sight of and the arts have not been given their reasonable share of the time. In other schools of this type, the arts are assigned 5 or 6 hours a week—one or two to drawing and four to shopwork or domestic science and art. In the larger schools where special industrial groups of studies are offered, the amount of time given to the arts is increased to from 10 to 15 hours a week. For example, in Detroit, the English course provides for 2 hours of drawing and 4 hours of manual training or domestic science and art, making a total of 6 hours the first year. The same amount is provided for the second year and in the fourth year the drawing is elective, but is given 5 hours. In the industrial course 10 hours are given to manual training or household arts and 5 hours to drawing in each of the three years. Other cities might be mentioned having similar courses, but Detroit stands high among the cities in its time allowance to the arts.

"The passage of the Federal Vocational Act and the subsequent state laws in harmony with it very materially increased the proportion

of time given to the practical arts for certain groups of students, but this amount, being regulated by these acts, has not been considered as coming within the field of this report.

II. Reports of the Committee of the Eastern Arts Association.

"For two years a committee of the Eastern Arts Association worked on this problem of time allowance. In 1915, William R. Ward, chairman of the committee, presented a report which was the result of a questionnaire sent to supervisors and to a few superintendents of schools in the East and Middle West. In summarizing the returns from the questionnaire, the report reads as follows:

"The inquiries made by the committee can be grouped under four heads: (a) Assuming the entire educational program to be represented by 100, what rating should be given to the manual arts factor? (b) Where the time allowance for manual arts has been increased, what results have been observed? (c) How much time should be allowed for manual arts in order that they may fulfill their purpose in the general scheme of education? (d) What means should be employed to secure a sufficient time allowance for the manual arts.

"Altho the replies to the first group of inquiries exhibited rather wide variations of opinion, ranging from 10 to 50 per cent, yet there was a remarkable uniformity in the majority of replies, giving an average of 25 as the percentage of value which should be accorded to the manual arts in the scheme of general education. While the time allowance should vary considerably for different grades, as will be seen later, the consensus of opinion seems to be that the medium of educational value of the manual arts in the various grades remains nearly constant.

"The unanimity of opinion that an increased time allowance for manual arts is followed by remarkably beneficial results was clearly shown by replies to the second group of questions. This conclusion is strongly supported by testimony from superintendents who have made a study of this phase of the question in connection with regular classes, as well as with classes of retarded and over-age pupils. Indeed, the statements made regarding this feature of the investigation display a marked spirit of enthusiasm. A few replies will verify this statement: "Pupils wake up and do 75 per cent better work, "Aids discipline," "Intensified interest in other subjects," "A quicker start to those who go to work." Experience with subnormal or defective pupils have not been considered in this report.

"The answers to the third inquiry relate to the four divisions of school pupils; primary, intermediate, grammar and high school. The greatest variations in opinion as to time allowance appear in connection with the primary and intermediate divisions, ranging from 60 minutes to 420 minutes for primary, and from 60 minutes to 300 minutes for intermediate. The average of all answers, however, approximates 180

minutes for primary and 150 minutes for intermediate grades. The primary grades were designated as those from one to four while the fifth and sixth were noted as intermediate grades. Replies relating to time allowance for grammar and high school grades show much more uniformity of opinion. The average of all answers for these two divisions approximates 240 minutes for grammar grades and 330 minutes for high school. Assuming that the school week consists of 1,500 minutes, it is evident then that so far as this investigation can be said to give expression to their views, the opinion of the experts in manual arts calls for an allotment of time for manual arts in the various grades as follows: Primary, 12 per cent; intermediate, 10 per cent; grammar, 16 per cent; and high school, 22 per cent.

"The fourth general topic of inquiry apparently touched a responsive chord awaiting an opportunity to give expression. The replies were spirited, and almost unanimous along three distinct lines of thought, viz: (a) lengthen the school day; (b) curtail academic non-essentials; and (c) closer correlation with academic subjects. Two other means finding somewhat general expression were, (a) adopt six-and-six plan of school organization, (b) systematic and organized effort on the part of all organizations of manual art teachers to advance the educational value of that subject.

"In 1916, the committee discussed at some length the value of the manual arts in education and then summarized its recommendations as follows:

"(a) The imperative necessity for providing a motive on the part of the child for acquiring information and knowledge discloses the primary purpose and aim of the manual arts work in grades below the sixth. Experience creates a desire for information. Constructive activity demonstrates a need for the tools of knowledge. The constructive activities of these grades therefore must be considered as a vital part of the system and not as an isolated subject. The time allotted to the manual arts in these grades should not be less than 15 per cent of the entire school time.

"(b) The specific purpose of the manual arts subjects in grades six, seven, and eight, is to lay a broad foundation of experience and information that will assist each pupil to interpret the social forces at work in his environments, to the end that he may make a wise and intelligent choice of life work, and thus develop into an efficient and loyal citizen. This is the most effective kind of vocational guidance work.

"To accomplish this purpose, our subject matter must be re-organized and industrialized so as to provide the possibility of a wide variety of experiences that reflect the vast industrial and social life of our country. Thru this means natural aptitudes will be accentuated; industrial intelligence will be developed. This program will provide an efficient substitute for the activities formerly obtained on the farm by every

country boy. Furthermore, this scheme will accomplish all and more than is claimed for the so-called prevocational school, and in addition, it forms a logical preparation for the particular pupil who enters the industrial vocational school.

"It cannot be asserted too strongly, however, that this is pre-eminently the work of manual training. The vital relation that it bears to the entire school program distinguishes it from vocational training. It is the right of every pupil to have the opportunities suggested.

"Finally, the experience of the training, and the broad sympathy of the manual training teacher combine to point to him as the one to direct this task. This is the plan that this Association presents as a justification for its demand for at least 20 per cent of the school time for manual arts subjects in these grades.

"(c) Beginning with the ninth grade or first year of high school, it is conceded that the purpose of the manual arts subjects may follow either of two diverging lines. For that large number who have not determined upon their sphere of life work, the purpose of the preceding grades continues, while for those who have determined upon an industrial occupation, the purpose becomes purely vocational. For the latter group, the time allowance should be at least 50 per cent of the entire school time."

The nomination committee reported through Miss Fitch, Chairman, the following nominations: for president, Miss Ruth Raymond; vice president, Albert F. Siepert; auditor, Miss Laura E. Holmes; member of the council, Harry E. Wood. The report of the nominating committee was received and the Secretary instructed to cast the ballot for the persons named by the committee. The secretary followed instructions and the Chairman announced that the parties were duly elected.

Miss Guysi suggested the necessity of outlining more definitely the work that would devolve on the entertaining city and on motion of Mr. Hollenbach, Miss Guysi was asked to draft a report for the local committee submitting same to the Council for recommendations.

On motion duly seconded, the meeting adjourned.

Signed: L R ABBOTT, Secretary-Treas.
Western Arts Association

